

THE AMERICAN MEDICAL MONTHLY.

NOVEMBER, 1854.

PART I.—ESSAYS, MONOGRAPHS, AND CASES.

Is the Practice of Medicine based on Science? Portion of an Introductory Lecture, delivered at the New York Medical College, Oct. 18th, 1854. By EDWARD H. PARKER, M. D., Professor of Physiology and Pathology, &c., &c. Published by request of the Faculty.

OF the learned professions, medicine alone rarely seeks the aid of rhetoric and eloquence. Its disciples are not trained to compete in acuteness or in wit, or to make the worse appear the better reason, neither are they privileged to address the public with the sacred authority of the pulpit, unanswered by any opponent, and allowed by the force of prejudice and presumption to be in the right. Their sphere is widely different, and their training is for far other ends. It is not, however, improper for us occasionally to seek opportunities to make ourselves better understood by our friends, and to present to them our own thoughts on matters of interest to the public as well as to us. I beg of you, then, to bear with me patiently, all untaught as I am in the school of eloquence, while I attempt to speak of and for a profession to which my life is devoted, and of which I never think but with pride and attachment.

I have said that the training of the physician is widely different from that of the lawyer and of the divine. Rarely do its paths run into either of these pursuits, or call to them the public gaze. The student is at once placed in the quiet office. He learns the medical properties of the products of land and sea; he is found in some retired, unknown garret, studying the wonderful organism of man, that he may carry to him who would imprison

him the boon of protracted life and restored health; he finds his way to the bedside of the sick, and learns to walk boldly where others fear to tread; spending his nights in some wretched hovel, that he may save the life of an outcast of humanity whom others avoid, going by on the other side; learning that there is to be to him no rest, no consideration of his own good while the lives of others tremble in the balance. He studies with eagerness and care the very first changes which disease produces, invisible to the unaided sight, that he may stay its very inception, and thus avert years of misery; and after all, he learns to receive with equal composure the censure of the public because his skill has failed to save some one whose maladies were beyond all human aid, and their praise, when health returns not because of his abundant knowledge, but because God wills. These are the lessons with which he *commences*, and to which, however careless and indifferent, he cannot be wholly blind.

And he early learns to understand his fellows, to see into their inmost hearts. Our legal friends see very much of the crime, and injustice, and suffering that is in the world; but they see little of their secret springs, and less of those traits which go far to make us respect our race. Our clergymen often meet a parade of virtues inscrutable to the keenest eye, but assumed for their presence only, and covering the very depths of iniquity. But when sudden sickness and threatening death invade a household, there is no time for disguises to be assumed, and the physician sees the deformity which exists. And so, too, the timid Christian, shy even in his pastor's presence, unreservedly with the physician who has his confidence, blazes out unawares into a bright effulgence, rarely seen this side the pearly gates.

These are some of the peculiar influences which from the first are felt more or less by every student of medicine. In their accumulated power they more and more affect him through his whole career, and their influence is seen upon the whole profession. Were it my purpose to speak of the characteristics of medical men, I should follow out these beginning influences into their full growth in the complete practitioner. This, however, I do not now take in hand. And yet I must stop to ask if it is possible for one subjected constantly to these influences to become a cruel, harsh, unbelieving man.

We are often told that we love to see blood run, and to hear the cries of suffering patients, rejoicing in that which causes any one of feeling to turn away with a shudder. The sight of blood is no more grateful to the merest operative surgeon than to any of his pallid friends, and the cries of the suffering patient find in no heart a more ready sympathy than in his. We may speak of an operation as beautiful, even, without expressing any love for what there is horrid about it. For is it not indeed beautiful to see

the knife, edged with death if it err but a line, so wisely guided that nerves and arteries and muscles are spared, while the disease is all removed? To see so much wisdom, tact, knowledge, and skill displayed as enables the operator, in an apparently inextricable labyrinth of tissues such as that which complicates the forearm, to take away, as necessity requires, either bone, and still preserve to the patient almost perfect use of his hand, thus restoring him from suffering and misery to happiness and usefulness,—is not this beautiful?

I know that the public are far more captivated by the operations of surgery than we. Although sometimes an unstable mind among us is thrown off his guard by *your* applause, and resorts to the knife as his remedy that he may gain *your* approbation, the approval of his fellow-surgeons is not hastily granted. Their judgment is stern, and usually, alas with human imperfection, not always just. Let me tell you some things which, though no secrets with us, may be unknown to unprofessional friends. The operating surgeon is little more than a skilful mechanic, and many of those things which astonish you by their boldness and apparent dexterity, require but little skill and less knowledge. To amputate a thigh, requires far less of both than the opening of many a little abscess,—requires far less time, and is attended with much less danger; and still, one will be noised abroad and published everywhere; while the other no one, knows. For most operations, moreover, it requires less skill to do them than to say if they are necessary. It requires more skill to restore a fractured limb to its usefulness than to cut it off. The one is, as its name, surgery, implies, “hand work;” the other is often the most difficult *head* work. The true and conservative surgeon unites, in fact, the knowledge of the physician with the skill of the mechanical anatomist. To the former qualifications is his greatest credit due, and their acquirement costs him the greatest labor. Every medical teacher knows very well that students are far more captivated by the operations of the amphitheatre than by greater victories at the bedside; but that, as years pass by, they learn to give each merit its more proper weight. Be pleased then to remember, that it is to the surgeon when he acts as the physician that the most credit and honor is due, and not when he stands untroubled by the sprinkling of a little blood.

Harshness and heartlessness are sometimes affected by members of the profession, but always to their injury as well as to their discredit; but you will find behind all their “*brusque*” manner a depth of tenderness and feeling more creditable to them and to humanity.

I should like to speak at length of the moral and religious results of those influences which I have mentioned as being from the first exerted upon us. This, however, is at variance with my general purpose; and I have lately had occasion elsewhere to repel an ignorant, careless, and inso-

lent attack upon us.* I, therefore, content myself with again denying what is susceptible of proof, full and convincing, that physicians are, as a body, or from any influences upon them tend to be, materialists, sceptics, or infidels.

The question often occurs, either directly or indirectly, "Is the practice of medicine based on a science, or is it merely the result of empiric observation?" I do not mean to say that this question is often asked in set terms, still a doubt of the fact is every day implied by the mode in which the profession is treated. Every science must be based on facts, and whatever just objection there may be to the Gradgrind style of general education, scientific knowledge must be thus exact or it is useless. The accumulation is no easy task. Multitudes of observers constantly at work, must bring together the results of their knowledge before any progress can be made by means of them. In truth, a very large accumulation of facts is necessary to eliminate the errors with which they are unavoidably attended. In medicine this is especially true, because so many complications attend every fact. Suppose a practitioner has an hundred cases of scarlet fever during an epidemic, and relying upon the use of inunction of oil with cooling draughts, finds only two or three to be fatal; it is not strange that he should report his success, and form the opinion that it is only from the great abuse of remedies that patients die of this fearful disease. Another practitioner similarly situated, meeting an epidemic which he combats with every skill, loses more than one-half of the whole; is it strange that if he should report his cases he would give his opinion that the disease is rarely curable? Now, with both of these men there is a marked error, and this can only be eliminated by the careful collection of a very large number of cases and by diligent comparison of them.

There is another source of error, to be eliminated only by the same diligence and labor. Suppose ten patients suffer from lung-fever, and I give to each one calomel, and all recover; am I not justified in saying that this is *the* remedy for the disease? But suppose I give to another ten doses of cream of tartar, and they all get well; am I not equally justified in saying that they have been cured by the treatment? Only the careful collection of facts can afford the data for the elimination of this error—I mean in those cases, so far as statistics can accomplish any thing. There are some other principles which would enable one properly qualified to judge, to do so with discrimination and accuracy.

The same thing is true in every science, and in all others is readily admitted. In medicine, however, this is reluctantly allowed to be the case; why one hardly knows at first, and yet, after a little reflection, it becomes very apparent.

* See Am. Med. Monthly, May, 1854.

The truth is, every one thinks he knows a good deal about medicine, and it requires a certain amount of study for him to learn that he knows little or nothing. It is the most natural thing in the world for us to attribute any changes to an alleged remedy previously administered, when in fact it may have been as powerless as the *dolce far niente* pellets which children take so easily.

"Post hoc, ergo propter hoc," is the blinding syllogism; to the fallacy of which, it is not easy to open one's eyes, and which not only greatly disturbs the judgment of the unprofessional public, but also of too many physicians.

Let me say a thing in confidence to my unprofessional audience. Of a medical fact, unless it be the very simplest, you at least, are not qualified to judge. It will be but a very simple thing for a shrewd person entirely to blind you, and to lead you to suppose that you see with your whole eyes. If, with great assurance, I tell you that a man before us is laboring under some disease, the name of which is new or strange to you, can you perceive my error or deceit, even if there be no such disease? Certainly, unless you are well acquainted with medicine, you cannot. I know that there is great skill in reading human nature, as it is called, acquired by those who have much to do with their fellows, and you may read in my manner or my *tout ensemble*, that I am a *humbug*—and, therefore, you may not trust me; still, you cannot tell what is my cheat. I desire, then, to say with the most heartfelt and profound respect to all our non-medical friends, that really they are entirely incapable of judging of ordinary medical facts, and the more they think they know, unless they have been regularly and thoroughly trained in medicine, the more likely they are to be deceived by any and every charlatan. It is from the very fact of this easy and oft-recurring deception that so many are led very seriously to doubt if there be a science of medicine. Unable to distinguish between the gold and the tinsel, and suffering from repeated mistakes, it is hardly to be wondered at that they should come to doubt if there be any genuine metal.

In geology, no one thinks of setting up for an adept till some little study has been expended on it. Nor in astronomy, or even in the more rudimentary algebra or geometry. So, too, it is with all the natural sciences, to mention no others; for who would claim to be a botanist or a conchologist who had not expended some time in the study of these branches. It can, however, be readily understood, that if one entirely unlearned in these should attempt to classify, and analyze, and arrange their objects, or to work out a problem, or to find an asteroid, or to define a trilobite, that he might find much comfort to his pride, mortified by disgraceful blunders, by saying that there is no science in any of these pursuits. Still, his presumption would not be greater than that of many, if not every man, who assumes to sit in

judgment on medicine. The voice of the people is not, in this case, the voice of a God.

And then, too, it is a proverb that "doctors disagree," and therefore they cannot be guided by any fixed scientific principles. While I enter my caveat against the fallacy which is apt to lie snugly concealed in our common proverbs, let me ask in what science you will find all its followers harmoniously united. Not in law, certainly; for how often do counsel learnedly quote and wisely argue, backed, as each is, with *all* the authorities, to show that positions, as opposite as light and darkness, are each correct. And still there is not any ærial influence, exerting an invisible but decided effect upon every thing, to confuse their result. Or is it in theology? Behold the long row of inconsistent and incongruous beliefs—Unitarians and Trinitarians, Methodists, Presbyterians, Episcopalians, Baptists, Quakers, Congregationalists, Irvingites, Hicksites, Parkerites—one class worshipping Christ, another denying to him adoration. All starting with the same data of the holy Scriptures, into how great confusion have they run! But there is a science of theology.

Or do the discussions of astronomers on the force of gravity, or their former ignorance of the telescopic asteroids, and the late modifications in the plan of the solar system, or the still remaining ignorance of the orbits of comets or of their nature,—do any or all of these lead us to doubt if there is such a science as astronomy? Why, then, should the disagreement of doctors be alleged as an argument against their science? The facts with which they have to do are much more difficult of translation than those of most sciences. A pain in the back does not always mean disease of the kidneys, nor a pain in the knee hip-complaint; and a pain in the head may have a very remote origin, to trace out which will require great thought and acumen. Is it strange, then, that all should not at once arrive at the same result? I declare to you that you will rarely find a more critical analysis, or more logical examination and reasoning on facts, than is often heard in the consultation room. If opinions should still differ, why is science to suffer for it?

"But if a science, it is very incomplete." It is very true that this cannot claim perfection, any more than any thing else that is human. Its principles, however, are as fixed as those of any of the other natural sciences, and its progress towards perfection, if it has not been so great within the last twenty years, was much earlier commenced, and is carried on with a surer and steadier progress. We have no reason to be ashamed of the incompleteness of our science, so long as all its students do their best to make it more complete and to advance their knowledge. Such progress is in fact being made, and to some notable instances of it allusion might be made, if delicacy did not here forbid. Every medical man knows that in

the treatment of those fearful diseases, consumption and cancer, the labors of men on both sides of the Atlantic have enabled us to make great advances. The existence of either of them is not now necessarily a doom to death. Consumption has been cured; and now that it has been demonstrated that cavities already formed in the lungs can be safely injected with medicaments, we cannot but hope the time will come when these fearful maladies shall prove as amenable to treatment as other diseases. Our science is incomplete; but no other advances with more quiet steadiness or by means of greater diligence.

But again, we are told there can be no science in medicine, for it happens to the wisest, the most skilful, the most diligent, to lose their patients. *This*, I doubt not, is the great cause of this unbelief in medical science. But alas, all are under the same penalty, and death has passed on all! Sooner or later the Inexorable overtakes all, and dust goes to dust. It is as great an impossibility for medical men to cure all their patients as it would be for them to preserve to all the bloom of youth. There is no perennial fountain whose waters ward off age—neither is there any panacea which shall ward off death. Neither does death arrive at a certain period; and our science is not bound, in order to fix its claim as such, to show that it preserves all to this age. Very many influences are constantly at work producing effects beyond all control. Is not law a science, because the guilty go free and the innocent are punished? Or is astronomy no science, because its disciples cannot say whether or not there is still another planet revolving in remote distance about the sun? And still, if medicine is no science, because it fails to cure all diseases, these should much more be no sciences. No one, seriously thinking upon the subject, can doubt that this is so, and still a very general feeling exists that the argument is good. In justice to medicine, allowance should also be made for the fact that certain epidemic influences are constantly at work complicating the problem which the practitioner desires to solve; while, from natural deterioration and the rascality of men, the known quantity of the equation, his remedy, fails to accomplish its proper result.

The question is not often bluntly asked, whether or not there is a science of medicine, and still it is perpetually put. It is asked and answered negatively too, by every one who occupies himself with sweet doing pellets, or with herb teas, or with only water as a remedy, or in equal confidence with only inhalations. It is asked and answered when our literary men trust to "soap doctors" and "prophets" of empiricism. It is asked by every funeral train that bears away the bodies of those who die because of their adopting peculiar notions of medicine, or because they gave in their adhesion to some theory concerning which they were unable to judge.

Is it strange that we feel the stinging insult of the question? For what does it, what can it imply, but that we are a set of cheats and knaves, or fools and blockheads? or perhaps it is both combined. I know if we cry out against the wrong done us and done to the community, it is thought to be because our craft is endangered. But it is not so. It is not our craft that is jeopardized, but lives which are alike valuable to us and to the whole community. If there be in our midst a reeking source of pestilence, is it not our duty to cry out against it and to strive to stop those who are heedlessly rushing on it to their own destruction? And shall we keep silence when any charlatanism is carrying off more than the pestilence by means of those things which it does, or by those which it leaves undone? How can we keep silence when, every day, lives valuable not only to families, but to the state or the church, are sacrificed to this ignorance of the true position of medical science? Yes, we are insulted; our science is wronged; the community suffers many a loss, and death gains multitudes of victims. The practice of medicine is based upon a true science, stretching back beyond the age of Hippocrates, than whom no greater genius is boasted by his nation; enlarged and built up by the labors of men in every age, second to none in intellect, industry and integrity; never lagging in its progress behind other sciences, but always in the foremost rank; and, now embracing in its students a body of men who for all desirable qualities fear no comparison with any other class. Is it wise, is it creditable, is it safe to set such a science aside to follow the vagaries of any moon-struck transcendentalist, or wild visionary, or ignorant empiric? It is no mark of superior intelligence or greater cultivation, or remarkable discernment, but of the contrary of all these; and if one's life does not fall a sacrifice to this theorizing, he will be sure, perhaps only too late, to seek assistance from that which is now slighted.

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The term on which we now enter finds us full of courage and vigor for its duties. The science of medicine requires much labor and diligence in its students; and of all portions of the course of instruction the lecture terms are fullest of labor and excitement. It is to these pursuits, to this toil that we welcome those gentlemen who have shown such confidence in us as to make choice of us for their instructors. Be sure that on our part no exertion shall be wanting to make the time spent with us profitable to you; but your coöperation is necessary to secure the result. This we do not doubt we shall receive; and while from your gentlemanly bearing we anticipate nothing but pleasure in these intimate relations, from your mental acquirements and industry, we look only for honor to the college when you shall have become its Alumni.

The Practical Importance and Value of correct Notation to the advancement of Medical Science. By HENRY MELVILLE, M. D., Edin.

It is to be much regretted that among medical men, even the best educated and most zealous, there prevails a *fashion*, a love of change in theory, and worse still, in practice. This mutability, and the uncertainty arising from it, constitute sources of a large share of the opprobrium cast upon the profession of medicine, and militate most seriously against the stability and progress of our science. Nor can it be denied that great repugnance exists to the labor requisite for the successful prosecution of the most important part of clinical observation—the compilation of exact statistical records. The evil results arising from these causes would appear to obtain to as great an extent, at least, in this country as in the older portions of the world; and probably exercise a more mischievous influence here than in Europe, where a more wholesome public opinion, both lay and professional, and a higher standard of professional learning, control, in a great measure, the vagaries of the educated visionary and the imposture of the ignorant charlatan. The evils attributable to this lamentable and chameleon-like spirit, assail not only the relative interests of the practitioner, but sap and undermine the integrity of the science. Hence arises, principally, the scepticism which begets distrust of the doctrines, and leads to disobedience of the laws established by the study and discoveries of highly-gifted men through all ages,—which unhinges the mind for that close and accurate observance of facts and details, that comprehensive and harmonious generalization, and the inductive reasoning, so essential to scientific inquiry. It would be premature to invest medicine with the character of an exact science; but the rapid strides which have been made in later days, the vast revelations in every department which have taken place, more particularly through the aid of the microscope and organic chemistry, and the results of the system under consideration, justify the belief that it will one day assume as high a position in the scale of philosophy as that of any other branch of human knowledge.

I will premise, that in the following pages, nothing is offered of a new or original character to those who are already familiar with the subject. I have collected and used the authorities on the subject, and even their language, freely, without reference to individual statement or opinion, except in instances which appeared to require particular comment; my motive being to give an impulse to the good work of careful investigation and complete record, as well as to bring before the notice of the profession generally in this country, a subject of the highest interest, where comparatively little has been done as yet, towards amassing medical facts, but where a

large field of inquiry exists, and many causes obtain, which regulate and affect the elements of calculation and multiply the objects of observation, in a manner, and to a degree, in many respects new and highly important. Those to whom the whole question is novel, may possibly find much to engage them, in perusing the opinions and considering the views of the scientific and successful cultivators of the numerical method, their attention being thus directed to the respective authorities.

It is not essential to my present purpose that I should review the number, origin, and fate of the many theories which have from time to time occupied the attention of medical men, or recount the various remedial agents which have, for a longer or shorter period, enjoyed a reputation for specific qualities. Such statements pertain more to the history of practical medicine. It is sufficient to know that these have been numerous, almost beyond belief, and as opposite in their nature and application, as the circumstances which gave rise to the construction of the first, and the diseases in which the others have been employed. Each in its turn has had a host of warm, and in many instances conscientious, advocates—its powerful and uncompromising opponents. Happily, however, for mankind, there have been some glorious examples in the history of the science, who, keeping aloof from this warfare of zeal, and profiting by the labors of both parties, have been able to cull many germs of truth from the mass of error; to select some elements from the crude materials accumulated, on which to found general laws. I desire to show the manner in which this good has in part been achieved.

In the earliest dawn of medical literature, we trace the rudiments of a system of numerical notation. The efforts then made evidently arose from the observation, that in a certain number of cases of similar character, a given number recovered, while in the remainder the disease proved fatal. It is improbable that the keen observers of that period in the art of medicine, should have witnessed such facts frequently, without making some attempt, however imperfectly, to reduce the result to figures; and, inasmuch as the manual or operative part of medicine was the earliest and perhaps most perfectly cultivated, it became a matter of remark to the older surgeons, that one particular operation failed in the proportion of once or three times out of four, and in another not once in fifty or a hundred times. Such crude and approximative statements seemed to have been considered sufficient for centuries. It is true that a more complete calculation was observable as progressively occurring; still no very comprehensive statistics were collected, nor did the subject command any great amount of attention until a comparatively recent date. Among the earliest and most assiduous cultivators of this branch of investigation was Parent-Duchâtelet, whose principles of examination have been thus characterized by his biographer,

M. Leuret: "Il écrivait ses observations, et il les comptait. Les mots *souvent, quelquefois*, n'entraient jamais dans ses notes; il lui fallait des chiffres, et des chiffres exacts, recueillis un à un, et pouvant se servir mutuellement de contrôle. Rien n'égalait la sévérité de sa méthode. Rechercher la vérité était pour lui une seconde religion." The writings of Parent-Duchâtelet on hygienic medicine, and his labors in this department, have established for him a world-wide reputation. But the great father of medical arithmetic, he who first elevated his "méthode numérique" to the rank of a science, was the illustrious LOUIS. He has been followed by many other writers in Britain, on the continent of Europe, and a few in America, whose united labors have contributed to the advancement of the system. In all well-regulated hospitals, and other institutions where the issues of disease and the casualties of life are observed, a faithful record is kept of every specific item of information, which can tend to throw light on the circumstances which govern those issues, and produce those casualties. Nor is it alone in the field of science that the system has been made applicable: speculative utilitarianism has availed itself of its principles; and the successful operation of Life Assurance Companies proves the accuracy of the basis upon which the superstructure has been raised.

Much opposition has been hitherto, and still continues to be, offered to the "méthode numérique." It requires much reflection, and not a little acumen, to enable one to combat the arguments adduced against it; nor is it quite so easy as might be desired, to decide the point at issue by a bare process of reasoning. Conviction must and will arise from the evidence in its favor derived from the accumulation of data, the certainty of these, and the care with which they have been collected. The following resumé of the arguments on both sides of the question, collated from various sources, will enable the reader, I trust, to apprehend the whole extent of the question, and its intrinsic value.

The opponents of this system, starting with the general axiom, that, "in the doctrine of chances, the events which are the subject of analysis, are either similar to each other, or differ by a ratio which admits of calculation," maintain that therefore it is futile to apply the doctrine of chances to medicine, as no two cases are alike, but they are indefinitely and undefinably unlike. Reference is made, in support of this assertion, to the collections of medical facts of ancient and modern writers; *exempla gratii*, the Epidemics of Hippocrates, the Epistles of Morgagni, Stoerck's Ratio Medendi, &c., in which it is asserted that few if any cases are found exactly similar. The evidence of Sydenham is adduced, who taught the dissimilarity of epidemics—a matter of daily observation with all practitioners, who cannot fail to recognize variations not only in successive epidemics, but in the same epidemic, at different periods of its progress, and in different localities.

Celsus is made to contribute the weight of his reputation by his assertion, "*Raro quisquam non aliquam partem corporis imbecillam habet*;" for, say they, if a difficulty exists, in reducing even those who are ordinarily considered healthy, to any given standard, how is it possible, amid the variety of diseases and their countless modifications, arising from numerous and different causes, to classify them, and to apply rules drawn from generalized disease to an individual case? "A disease is not a simple and uniform entity, but a series of ever-varying phenomena; and, as every exclusive theory is deceptive in the study and analysis of symptoms, so every fixed method is absurd in the practice of physic. Numerical calculations, therefore, which, even in the pure mathematics, sometimes lead to error from the uncertainty of the facts on which they are founded, are open to so many sources of fallacy in medicine, that they are pernicious rather than useful." The limited extent of the *number* of facts observed or collected, and the time through which it is necessary to carry on these observations, are also urged as strong objections. And it must be observed, one writer very tritely remarks, that there is a great difference between the elimination of medical truth by the balanced results of ages, and the hasty theorems which M. Louis deduces from the practice of a few years in a single hospital. The experience of many hospitals and other countries will no doubt often show, eventually, that the practice of ages, and the *unfigured* persuasions of the older physicians, were more correct than tables constructed from a small number of cases.

From evidence like this, and from such reasoning, it is attempted to prove, that in the observation of disease, in the study of its symptoms, and in its treatment, it is essential always to keep in view the doctrine of individuality; in fact, to regard each case as a new and separate problem, it being contended that the most eminent physicians are those who have been most celebrated for the exquisite tact with which they recognize the subtle differences of cases passed over by the common herd of practitioners.

To meet the objection based on the doctrine of probabilities, it is asserted, that even on subjects which are usually brought within the operation of this law, the supposed similarity of events does not always exist; nor does the difference or variation observable in them admit of that strict numerical estimation upon which their value as data should depend, in the construction of the theory. This argument is thus ingeniously illustrated: In throwing a die, and computing the probability of certain results, it is supposed that its six faces are perfectly and exactly equal in linear extent and evenness of superficies—a supposition which can rarely, if ever, be correct, but is most frequently erroneous. Yet, notwithstanding these defects of the materials, and the error of the hypothesis founded on their supposed exactitude, we shall find that the person who, from previous inves-

tigation of results, knew that in throwing two dice, deuce-ace was a far more likely cast than double sixes, would have an immense advantage in his play over another who was entirely ignorant of this fact; for the greater superiority of the probability would almost always counterbalance the inequality of the dice. It is, therefore, very possible, that a beginner, unskilled in the doctrine of chances, might suppose each of these throws to be equally probable. The same error obtains with respect to medical facts, and would appear to arise from the circumstance, that in reasoning on a stated occurrence, the entire weight is given to the vague and general impressions produced on the mind by certain peculiarities or characteristics of disease, rather than in computing the events in a large number of cases. This mistake has actually been made by some very distinguished physicians, who appear to have been completely deceived in many instances. It was stated by Corvisart, that dilatation, with thinning of the walls of the heart, was common; yet it is remarkable, that in the work in which this statement appears, only *one* case of this description is given. The same observation has been made by others also; yet in forty-five cases of disease of the heart observed by M. Louis at La Charité, during eight years, no instance of this condition was observed. Lænnec made a similar general statement with reference to ulcerations of the trachea, which he asserted to be very common in phthisis, but rare in those who were not the subjects of tubercle. The statistical records of this disease, as compiled by M. Louis, show the reverse to be more correct. Examples might easily be multiplied, but these are sufficient for illustration. The truth is, that the more glaring such errors are, and the more important and startling the phenomena included, the more clearly do they convince us of the entire uselessness of mere approximative results.

The question of the individuality of disease is not the least important or interesting point which arises in the discussion; yet few, it is presumed, will be prepared to maintain the impossibility of nosological classification. If, indeed, every case of disease differed essentially in its characteristics from all others, the science of medicine would in reality be but the momentary observation of diverse and ever-varying phenomena, and the practice of physic, founded on the scientific theorem established by analogical reasoning, would be altogether useless. Fortunately for our science, the study of ages and the labors of learned investigators have succeeded in establishing the fact, that in diseases there are certain well-defined characteristics peculiar to the several forms, which assist and justify us in arranging them into separate groups. Not only can we classify the diseases according to the general features which they present, but we can recognize in each, one or more distinctive peculiarities which invariably denote the existence of one form of disease. It is scarcely necessary, perhaps, to refer to the ease and

certainly with which malignant, fatal, or remediable disease can be detected, when, without the ken of naked vision, by the microscope, with the aid of which we can distinguish the cancer-cell, the altered blood-globule, or the crystalline deposit, whose character may be more completely established by chemical science. Nor are the advantages of this mode of numerical investigation confined to the mere arrangement and classification of disease, the improvement of diagnosis, and the correction of prognosis, but it materially assists in enabling us to treat disease by general rules, in spite of the minute differences to be discovered in individual cases. Examples of this will readily suggest themselves to the mind of the reader, as for instance, the effects of quinine in ague, colchicum in gout, and sulphur in itch. The remarkable power exercised by these remedies over the diseases enumerated, in which they certainly attain nearly all the requirements of specifics, is displayed in cases which differ very materially from each other. It is undeniable that, in these diseases, instances will occur in which, from some peculiar complications, either constitutional or pathological, these remedies would not only be inadmissible and useless, but even positively injurious; as in the case of colchicum in gout, it would be most improper to administer this drug when there existed a highly inflamed or congested condition of the alimentary canal. But such exception rather tends to show the extreme danger of treating disease empirically, and the necessity which exists for using the greatest discrimination and judgment in the investigation of it and the formation of our diagnosis, and cannot be fairly used to display any fallacy in the numerical method.

That the system is open to abuse and error, like every other plan of human arrangement, cannot rationally be disputed; but those who zealously and judiciously prosecute this mode of investigation, however startling and comprehensive the results they obtain may be, are not justified in confining themselves to general rules and their manifestations. The exceptions become the object of careful study and examination, and form the groundwork of separate problems, to be worked out with the necessary elements, and by sound reasoning and great reflection. Nor is it by limiting attention to the mere combination of units, by numerical expression simply, that the great and fundamental principles of the science can be eliminated; the whole mind must be given energetically to the details of facts—not alone to note the number of cases occurring of one generic form of disease in a certain locality, and the casualties and results following its prevalence—but every circumstance must be strictly considered which is calculated to afford information, not only on the pathogenesis, progress, duration, and termination of epidemic, endemic, and sporadic diseases, but also on the influences which have been observed to govern their treatment. In such an investigation, the principal points to be regarded are, climate; constitution,

natural and hereditary, as well as modified by acquired taint during life ; habits ; complication of diseases ; and peculiar idiosyncrasies. So wide a field of observation necessarily calls for a subdivision of labor for its proper cultivation ; and hence we find the tendency manifested by physicians to adopt one particular disease for study and remark.

It must be admitted, that in conducting the calculations connected with this department of medical science, many mistakes occur from a variety of causes, but principally from omitting some of the elements of the problem. I shall proceed to discuss, in another paper, the sources of error or fallacy in the numerical method, and follow this up by giving some of the most prominent conclusions which have been arrived at by its aid.

Final Report of the Mott Street Cholera Hospital, under the superintendence of D. S. CONANT, M. D., Demonstrator of Anatomy in New York Medical College.

This Hospital was opened on the 25th of July, and the first patient received on the morning of the 26th. It was closed October 23d, the remaining convalescent patients being sent to Ward's Island and Bellevue hospital.

There have been treated in the Hospital, in all, three hundred and twenty-nine patients ; and with what success may be seen by the following statistical report.

Of the three hundred and twenty-nine patients received at the Hospital, the nativities and ages were as follows : From—

Ireland,	147, of whom 81 died.		
Germany,	87,	"	30 "
United States,	*45,	"	24 "
England,	17,	"	6 "
Holland,	9,	"	2 "
France,	7,	"	3 "
Scotland,	4,	"	3 "
Portugal,	3,	"	2 "
Newfoundland,	2,	"	1 "
Switzerland,	2,	"	1 "
Canada,	2,	"	1 "
Spain,	1,	"	0 "
Sweden,	1,	"	0 "
Belgium,	1,	"	0 "
Poland,	1,	"	0 "
	<hr/>		
	329		154

* Of these, 15 were children of foreign parentage.

As to the ages of those received; there were,—

Between 1 and 10 years,	. . .	25, of whom 13 died.
" 10 " 20 "	. . .	32, " 14 "
" 20 " 30 "	. . .	121, " 50 "
" 30 " 40 "	. . .	66, " 28 "
" 40 " 50 "	. . .	44, " 23 "
" 50 " 60 "	. . .	30, " 16 "
" 60 " 70 "	. . .	10, " 9 "
70 "	. . .	1, " 1 "
		<hr/>
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It is well known to every intelligent physician that the mere figures of an epidemic hospital report are no criterion of the success of practice in that hospital, without a fair statement of the condition of the patients when admitted. The condition of those admitted in Mott Street Hospital was as follows:—

Moribund,	. . .	44, of whom 44 died.
Perfect collapse,	. . .	64, " 54 " 10 recovered.
Incipient collapse,	. . .	66, " 40 " 26 "
Incipient cholera,	. . .	155, " 6 " 139 "
Of old chronic diseases awakened by the attacks,	. . .	10 "
		<hr/>
		329 154 175

Of those who died having recovered from the cholera attack,—

- 2 died of delirium tremens.
- 1 " pleurisy, with effusion.
- 1 " " with chronic peritonitis.
- 1 " softening of crura cerebri.
- 1 " consecutive pneumonia.
- 1 " consumption.
- 1 " marasmus.
- 1 " old mesenteric abscess, with chronic disease of ilium.
- 1 " ovarian abscess opening into rectum, and chronic dysentery.

One of those received in incipient collapse became frightened after having almost entirely recovered from the first attack, and died in five hours. A patient was brought in moribund, and placed upon the next bed. Very soon it was noticed that the eyes of the first patient began to look sunken, and she was immediately removed to a distant part of the room; but other

patients were being brought into the ward; and though she was a fine, well-developed girl, of nineteen years, she rapidly sunk and died.

Two of those who were perfectly collapsed had nearly recovered also, when one of them became frightened, and medicine seemed to have no effect at all; and she died. In the other, reaction was established the second time; but she went down the third time, and died.

It will be seen by the preceding tables, that a large proportion of the patients have been received late in the disease; and this can be accounted for in several ways. In the first place, physicians, in very many instances, will never advise their patients to go to the hospital so long as they have a cent of money to pay a fee, or there is the least prospect of their recovery. For, say they, "I have sent many patients to the hospital, but they all die; and I have not lost a single patient, either in '49 or this year, when I could be paid for giving them proper attention." One reason why all their patients die at the hospital is, that they refuse to let them go until they are moribund; and the reason they never lose one is, that they refuse to attend them when they find they are going to die. They consider the hospital the only fit place for a patient to die of cholera.

Another reason why patients dislike to go to the hospital is from what they see in the public prints. The Sunday Dispatch, for instance, had an article, Sept. 10th, which bore upon its face evidence of entire ignorance of the hospital, either as regards treatment, condition, or success. In fact, such articles have had a direct tendency to bring about the very result they so much deplore. If physicians had been more prompt in sending patients to the hospital; if the public prints, instead of crying down the hospitals as pest-houses, had spoken of them as public charities (which every intelligent person who understands the object and result of such institutions would consider them to be), we believe the result would have been still more favorable than is seen above. For we do feel that we have softened the pillow of death for more than one hundred patients of other physicians, while we have tried to make our own see that no labor, no skill, in fact nothing at our command, has been wanting to restore them to health, or to make them comfortable as they went down to the chambers of death.

The treatment at this hospital has been divided with the different stages of the disease, and varied according to the constitution and diathesis of the patients. In the incipient stage, the acetate of lead and opium have been used principally; in the active state, calomel, opium, and creasote; in the various stages of collapse, calomel, rhubarb, and capsicum, with beef-tea, brandy, etc.; in the consecutive stage, diuretics, diaphoretics, stimulants, and tonics. In all cases, and in all conditions, *hot* drinks alone were used, and heat externally applied, together with *absolute rest*.

The details of treatment, the results of over one hundred postmortem

examinations,—during which we feel that important discoveries have been made, which will assist in unraveling the mysteries of this fearful disease,—will all be submitted to the consideration of the profession at large, in some future number of the MONTHLY.

It can only be added here, that the pituitary body at the base of the brain was found diseased in every case examined; although the principal manifestations of the disease were found in the mucous membrane of the stomach and duodenum.

An unusual case of Abscess of the Rectum succeeding child-birth. Reported by AUGUSTUS K. GARDNER, A. M., M. D.; Physician to Northern Dispensary; Member of New York Therapeutical Soc., Nat. Med. Association, Mass. Med. Soc., etc.

(Read to the New York Academy of Medicine.)

July 18th, 1854, I was called to Mrs. J——, 39 Fifth st., æt. 33, in labor with her fourth child—now at full time. During her gestation, she had been troubled by sour stomach and constipation; had not been in usual health for the year previous; suffering under dyspeptic troubles with some leucorrhœa. During her previous confinements (with children weighing about 11 lbs.)—she took chloroform—she had an eversion of the rectum, followed subsequently by hæmorrhoids which were very painful, but which were relieved by fomentations, leeches, &c. At intervals subsequent to her first confinement, she was troubled, when looseness of the bowels occurred, with this prolapsus and hæmorrhoids, particularly during her gestations; which were relieved by applications of ice and other remedies.

For several days Mrs. J. had premonitions of approaching labor, which, however, did not assume an active form until the morning of the 18th, when I was called, at 8½, A. M. On examination the os was found almost fully dilated and dilatable, the membranes ruptured and a profuse show. The pains speedily grew very strong, and chloroform was administered in small quantities—sufficient to blunt the edge of the pain, but without stupefying the patient. Still, however, the frequency of the pains, as well as their intensity, was sensibly diminished, and the completion of the labor delayed. Nevertheless, at 9½ o'clock, she was safely delivered of a female child weighing 9¾ lbs.

As the head passed the vulva, the rectum was forced out, but was restored to its natural position, without difficulty, immediately after.

Before the labor, the bowels had been cleared by ol. ricini, which had several operations.

For several days the patient did very well, till her old affliction, the hæmorrhoids, commenced to trouble her. On the right side there was one of the size of a half egg, and opposite to this one or two small ones. The pain from them was relieved by suppositories of a grain of opium and two grains of camphor, or by a teaspoonful of tinc. op. camph. as was required. Mrs. J. was always very unpleasantly affected by opium; and the camphorated tincture was the only form in which she was able to take this drug, without cephalalgia and gastric derangement. The opium suppository with camphor had no marked unpleasant effect. Leeches were applied, and cataplasmata, which in a few days, so restored the parts to their natural state, that she was able to sit up. It should here be especially noted, that these hæmorrhoids never softened or contained pus, but were gradually absorbed and slowly melted away.

On the 10th day Mrs. J. sat up, and from that time did very well, (having an abundance of milk for the child; good appetite, principally satisfied by Graham crackers; lochia nearly ceased), until August 1st. when I was again called.

I found that, some day or so previously, she had eaten the greater portion of a pint basket of the Lawton, or seedless, blackberries, which had been followed by a diarrhœa, persistent in its character, accompanied with tenesmus. To arrest the frequent passages as well as to insure the evacuation of the contents of the bowels which might remain, I prescribed as follows:

R. Hydr. cum cretâ,	gr. xii.
Pulv. Opii,	" iii.
Gum. Camphoræ,	" xii.
M., ft. pulv. No. vi.; quâque horâ quartâ, una.	

This acted apparently beneficially, and for several days she seemed almost recovered from this attack, under the influence of a chalk mixture, with laudanum. On the 6th, on account of more than usual tenesmus, she was advised to resume the use of the suppositories, which she did after every passage. Under their influence the passages assumed a natural character, the offensive smell disappeared, and the fæces were shaped, and so firm as to give pain in their exit; still the straining down continued. To overcome these symptoms, on the eve of the 9th I ordered as follows:

R. Morphie Sulph. gr. $\frac{1}{2}$
Hydrarg. sub Mur. gr. i.
M., ft. pil. una.

This operated the next day three times copiously, bilious; and a suppository was then administered. The discharges from this time were more frequent,—five or six in the twenty-four hours, dysenteric, accompanied with slight traces of blood.

About this time Mrs. J. complained of great difficulty of micturition; but by various methods, such as hearing the sound of water flowing, she succeeded in evacuating the bladder. Great attention was paid to her diet, and a variety of simples sustained her strength, without too much taxing the powers of digestion.

On the 12th, I saw her in the morning; the frequency of the passages was restrained by suppositories.

R. Pulv. Opii,
Acid. Tannic,
Gum Camphor, āā . gr. ii.
Butr. Cacao, q. s.—M.
One after every movement.

To restrain the constant tenesmus, unusual in simple dysentery, not unfrequently two or three were given, or sulph. morph. by mouth, gr. $\frac{1}{4}$, *pro re nata*, without awaiting a dejection.

On the 12th I was myself taken with dysentery, and kept my bed until the 16th, during which time Mrs. J. was under the prudent care of my accomplished friend, Dr. Henry Weeks Brown. On visiting her in the evening, Dr. B. found her pulse, hitherto about 90, increased to 120; great pain and almost inability in urinating, and the passages from the bowels apparently unrestrained by the suppositories, and consisting principally of blood, in considerable quantities.

Dr. B. evacuated the bladder with a catheter (and this was done twice or more times every day, subsequently), ordered injections of ice-water—which, for a time, controlled the discharges—after every passage; and a consultation was appointed for the next morning, with Dr. Willard Parker.

Previous to this, we had a conversation upon the peculiar features of the case. The probability of some local lesion was suggested, and various plans for its treatment were proposed by Dr. B., such as nitric-acid applications, &c.

The next morning the blood was found to flow hæmorrhagically from the anus, without any fecal matter or effort at dejection; and on examination a sloughing ulcer was easily found, admitting the finger to a considerable depth, immediately within the sphincter, on the left side, and opposite to the locality of the large hæmorrhoid, before spoken of. Dr. Parker then proceeded to pass in a sponge, saturated with alum-water, which arrested the hæmorrhage; administered brandy and morphine, q. s. The case now appeared a plain one; the indications were to stop the hæmorrhage, keep up the strength, and trust to time and the recuperative processes of nature. Subsequent slight attacks of hæmorrhage were easily arrested. I saw her on the 16th, with Drs. W. Parker and Brown. The alum sponge was no longer necessary; food was advised, as could be borne, and opium locally,

to quiet irritability; the bowel to be washed out with a syringe, twice a day.

I found her much reduced, pulse 120, appetite fickle. The ulcer appeared to be of the size and depth of half a hen's egg, but little tender, and the contents fetid.

17th. Saw her several times; in the morning with Dr. Brown, and found her improving in strength and appetite. All symptoms favorable.

18th. While engaged in washing out the bowel, Mrs. J. was taken with a slight chill, followed by no sweat or fever, which was attributed to the exposure from uncovering the person, and perhaps from the water being too cold. Apparently improving.

19th. Bears food well, and apparently improving. The chill not repeated. Supposed to have occurred from exposure to draught while administering injection. The following was given:

R. Tinct. Cinchon. Comp. \mathfrak{z} ij.
Sulph. Quinine, \mathfrak{g} iss.
Syrup, \mathfrak{z} ij.—M.
3 i quâque horâ quartâ.

From this date to the 29th she appeared very much the same. The second day after taking the quinine, she complained of symptoms indicating that the quinine was affecting the head, and it was finally discontinued. For several days the frequency of the doses had been diminished, as it was supposed to diminish the appetite, or at least to render the stomach irritable. Gradually the stomach lost its tone, and a great variety of articles were tried to be eaten, but which soon palled; eructations and sour vomitings supervened. The nitro-muriatic acid, in five-drop doses, *ter in die*, at first appeared to relieve this state, but was soon stopped as inefficient. Constant nausea and frequent vomiting commenced; and supposing it might arise from a wearied stomach, its rest was advised, and a tablespoonful of arrow-root, made with water, every half-hour, and soda-water in small quantities as drink, were advised; and for relief

R Hydrocyanic Acid, gtt. xl.
Aqua,
Syrup, aa. f. \mathfrak{z} i.—M.

was advised—a teaspoonful every three or four hours.

Slight chills, without rigor or succeeding sweats, were now observed at irregular intervals. Phlebitis was suspected, but no evidences observed; no pain over the liver.

On the 29th, the patient gradually failing and from no apparent cause, Dr. Parker was again called in consultation. The obstinate nausea, and the consequent loss of strength and great emaciation, was the only serious

symptom. The irregular chills were thought to be miasmatic, from inability to ascribe them to any other cause.

After much deliberation, the state of the stomach was, with some considerable reluctance, ascribed to the constant use of opiates. Mrs. J. was always unusually sensitive to all forms of opium; nausea, &c., always accompanying its use. For many weeks she had now been in its constant use. The abscess had not been recently examined, from an unwillingness to disturb the healing processes of nature; particularly as no good result was expected to be gained by this unpleasant operation. The opium suppository was generally used after every passage, to quiet any irritation, and to thus facilitate the cicatrization of the ulcer. It was supposed that the opium was causing the nervous irritation of the stomach. It was omitted for a day or two, and a five-grain bolus of hyoscyamus substituted, as might be necessary. During this whole period, the pulse varied little from 108 per minute.

Aug. 31st. The lady had now taken scarcely a mouthful of any nutritious matter for more than a week. The bowels irritable, with two or three fecal movements during the day, and the nausea incessant. Hoffman's Anodyne was recommended.

Sept. 1; 1, A. M. The anodyne inefficient. Jactitation. Pulse 120. Nausea increased with straining to vomit. Gave chloroform by inhalation, with great relief. Pulse much fuller and less frequent, nausea relieved entirely, except when moving, some still remaining. Senses but slightly affected, and constantly expressing the benefit derived from the anæsthetic, Sulph. ether was tried, but the effect was far from equalling that from the chloroform, and unpleasant in its taste and sensation to the patient.

This inhalation was kept up almost incessantly, until about 9 o'clock, when by inadvertence she was allowed, while asleep, to come out from its influence, and strong vomiting commenced. It was re-administered, but the vomiting had again caused several movements of the bowels slightly marked with blood.

At 11, A. M., I again visited her with Dr. Parker; the hæmorrhage had again commenced to an alarming extent, and an injection of alum water had not arrested it. Pulse very feeble, 180 per minute, respiration rapid; hæmorrhage constant. The matters vomited were grumous, and like decomposed blood.

On examination for the source of the hæmorrhage, the abscess was found to be not only not healed, but apparently larger than before. The sponge saturated with alum was inserted, and a tampon externally to rectum; but in vain, the hæmorrhage flowed on each side in a constant stream.

It was but too apparent that life was fast ebbing away. The chloroform was withdrawn, and brandy administered. She was informed of her situa-

tion ; and, with great composure and with perfect consciousness, parted with her friends, and commended her soul to her God. Great pain then coming on in the chest, from local congestion probably, she called again for the chloroform, and at 1 o'clock passed from time into eternity.

There are several features in this very remarkable case, worthy of consideration. The peculiarity of the lesion in its manifestations, and its coincidence with other affections ; its uncertain diagnosis and variable prognosis ; the treatment called for and the certainty, evinced by the autopsy, that cure was not within the limits of medical skill ; and finally the effects of the various remedies employed, particularly opium and chloroform, in this and other forms of diseases. I shall not at present enter upon the discussion of these points, but shall defer to some future time this consideration, and particularly that of the use of chloroform in parturition, and as an alleviator of various forms of spasm.

The immediate cause of death in the case presented, was hæmorrhage from the hæmorrhoidal veins exposed by the sloughing abscess of the rectum. The origin of this abscess is less easily told.

In the prolapsus during the labor, the rectum did not remain external three minutes before it was carefully returned. The hæmorrhoids did not suppurate, but gradually softened, became absorbed and vanished. More than this, the abscess was opposite the principal and only hæmorrhoid of any note. The patient was convalescing from the effects of the labor and the hæmorrhoids, when the dysenteric symptoms commenced. There was at no time any suspicions that an abscess was forming, neither any indications of its rupture, or signs of any discharge of pus observed. Could this have originated as a dysenteric ulcer, gradually deepening as it sloughed, until it exposed the vessels and took the form we observed ?

I find no account of a similar form of disease in any of the numerous works upon the rectum, several of which have recently issued from the English press, by writers of high reputation and known ability.

The Salts of Manganese. By E. H. DAVIS, M. D., Professor of Materia Medica, etc.

It is quite curious to observe how rapidly some remedies have attained a wide-spread reputation, and, after a short-lived popularity, have lost it as soon. But such has not been the case with the various Salts of Manganese ; for although some of them, at least, possess intrinsic value, they have been very tardily adopted by the profession.

It was observed many years since, that the workmen in the manganese mines of Macon, in France, were uniformly cured of scabies and other cuta-

neous affections during their stay at the works. This led, at the time, to the use of the oxide for such cases elsewhere.

But we do not purpose in this article to chronicle the rise and progress of this metal as a medicinal agent, but merely to call the attention of the profession to some of its preparations. Having recommended for years the use of the principal salts of manganese, such as the carbonate, sulphate, malate, tartrate, phosphate, and iodide, we were much surprised on a recent occasion, when sending a prescription containing the phosphate of manganese, to learn that the article could not be found, although some half-dozen of the best shops in the city were visited. The patient, of course, was compelled to wait until the salt was produced in the laboratory.

The French have paid special attention to this remedy within a few years, in consequence of the discovery, by M. Millon, of the presence of this metal in the blood.* M. Hannon has experimented on himself and others, proving conclusively the power of manganese to improve the color of anemic patients, as iron has long been known to do. The result has been the development of important therapeutic resources, fully equal, and in some respects superior, to those of the ferruginous compounds so long familiar to the profession.

It is stated among the prominent advantages of manganese over iron, that its preparations may be combined with all the vegetable tonics and astringents without risk of chemical incompatibility.

The *carbonate* has often been prescribed, but is considered too bulky—four to ten pills, of four grains each, being necessary daily for chlorotic patients.

Honey or syrup should be used in the preparation of these pills, as saccharine matter tends to prevent further oxidation. Mitchell recommends also the addition of fresh charcoal for the same purpose.

The *malate* is easily procured by acting upon the carbonate with malic acid. It is a desirable preparation, and can be given in the form of pill, in quantity of from two to five grains at a dose. A syrup, which is generally the best form of exhibition, may be made thus:—

℞. Mal. Mangan. ʒ ss.

Ess. Limon. ʒ i.

Syrup Simp. ʒ viii.

Dose, teaspoonful three or four times a day.

The *tartrate* is made just as the malate, merely substituting tartaric for malic acid, and may be dispensed in like manner. A highly tonic syrup can be formed with it as follows:—

* Transactions of the *Académie des Sciences*, of Paris.

℞. Syrup Tolu. ℥ vii.
Ext. Rhatan.
Tart. Mang. aa. 3 i.

Mix well. Dose, teaspoonful four or five times daily.

Phosphate of Manganese is produced by adding a solution of phosphate of soda to a solution of sulphate of manganese. After the precipitate is dried, pills may be made, in the proportion of a drachm and half combined with half a drachm of Peruvian bark, and sufficient syrup of catechu or other syrup to make a mass. Pills to be divided into four grains each. A syrup is thus prepared :—

℞ Phosph. Mangan. 3 ss.
Syrup Tolu. ℥ iij.
Syrup Cinchon. ℥ v.
Ess. Limon. 3 iss.
Pulv. G. Arab. ℞ i.

Mix quickly—keep in a well-closed bottle. Dose, teaspoonful.

The *iodide* may be administered in form of pill, or in combination with syrup of sarsaparilla.

These preparations have been highly recommended for the anæmic state resulting from tubercular disease.*

Hannon proposes to combine the two metals, where iron alone is not successful. It is also suggested to use first the insoluble preparations—as the carbonate, phosphate, and oxide—and afterwards the more soluble, as the tartrate, malate, &c.

The salts of manganese are more easily assimilated than those of iron, and, consequently, a shorter period is required for their exhibition. They are considered valuable in the depraved state of the blood consequent upon intermittent fever, and it is thought their use will prevent a return of the attacks. Enlargement of the spleen is speedily reduced by the iodide with syrup of cinchona.

* Braithwaite's Retrospect, part xx.

PART II.—REVIEWS AND BIBLIOGRAPHY.

The Science and Art of Surgery, being a Treatise on Surgical Injuries, Diseases, and Operations. By JOHN ERICHSEN, Professor of Surgery in University College, &c. Edited by JOHN H. BRINTON, M. D. Illustrated by three hundred engravings on wood: large 8vo., pp. 900. Blanchard & Lea, Philadelphia, 1854.

WITH becoming modesty, Dr. Brinton tells us in his preface to this American edition of the "latest work out," that he has found "little to add or correct, except those views and operations which belong essentially to American surgery." It is always a nice task to supply the deficiencies or remedy the mistakes of another author; but when it is well done, he who so performs it, is entitled to a fair share of praise. Dr. Brinton has, with much judgment and as concisely as possible, noticed the several ellipses with respect to the opinions and practice of American surgeons, and in so far has made the edition before us more complete than it otherwise would have been. It is to be presumed that he did not feel himself called upon to criticise, or meet by counter statements, any of Mr. Erichsen's observations on those points of American surgery which he has included in his work; for there are one or more instances in which, as will be discovered in the course of our remarks, he might have answered the ex-cathedra judgments of the English author. It may be a matter of opinion in how far the literary or scientific reputation of a collaborating editor, conducting a foreign work through our domestic press, is involved in that of the author to whose production he stands more or less in the relation of a sponsor or guarantee; it appears to us, however, that if in this capacity, he makes any additions or comments to the work at all he renders himself accountable for *all* the opinions therein contained, unless in the same manner they are distinguished, and controverted or repudiated. We consider this to be a point of some importance, in connection with the system now so common, in reprinting a foreign work, of giving it the prestige of an American name as editor. If this addition is necessary to carry weight with the American profession, and thus answer a good end for the bookseller, the medical man who lends his name to the introduction, should exercise all the privileges he can, to advocate on the one hand, or to disavow on the other, the statements contained in the text he is revising.

It is fortunate for us that Dr. Brinton's reputation cannot be affected by any discussion of the question we have thus briefly mooted; but viewing this as a very material point in the matter of book craft, we hope that some ethical law may be brought to bear upon it practically and efficiently

hereafter. The work is placed before the profession in its American dress, in a most satisfactory manner, and is, in many respects, as useful a manual as any now offered to the student.

The work contains the substance of Mr. Erichsen's lectures delivered at the School where Liston taught. Mr. Erichsen is rising rapidly in public favor and the estimation of the profession in his own country. He is a neat, quiet, and successful operator, a careful diagnostician, a good scholar, and a most assiduous student; with these qualifications we should expect to find him enjoying the reputation of a popular lecturer and elegant writer. We like the style and title of his work, "The Science and the Art," there is something suggestive in it. It leads us to anticipate a greater generalization, a more comprehensive and philosophical view of his subject, than that which has been generally hitherto adopted, viz., "The Principles and Practice." When we compare the book before us with South's Edition of Chelius, we feel that there is something which at once convinces us, even although we may be unable satisfactorily to explain what this something is, that Mr. Erichsen falls short of the realization of that ambitious scope proposed by his title. That, as good, clear, and useful lectures, his pages deserve a high encomium, we frankly admit; but they certainly do not impress one with the high classical and philosophical character, or exact scientific authority, which we would hope and expect to find in a book professedly written on the science and art of surgery; by which we understand the abstract philosophy and fundamental laws of that department of medical science which has for its peculiar province, the prevention and cure of those structural lesions produced by external and mechanical causes, or internal sources depending principally upon perverted nutrition.

We regret that we cannot afford the space necessary to follow Mr. Erichsen through many of what we consider as his peculiar views on several points of theory and practice, but we cannot permit to pass unnoticed the following curious and extraordinarily positive passage in connection with a great fact in American practice; a passage which we think we should have commented on in brackets, had we undertaken the office of editing this work. At page 671, under the heading "Aphonia—Chronic Laryngitis," we find the following words:—

The *treatment* of these various chronic inflammations of the mucous membrane of the pharynx and larynx requires to be conducted by the topical application of a solution of the nitrate of silver, which may almost be looked upon as a specific in these diseases. The great value of topical medication in these affections has been principally pointed out by American surgeons, amongst whom the names of Drs. Horace Green and J. Warren, may especially be mentioned. The nitrate of silver may be applied in various ways, on sponges, in powder, or by injection. The mode of application that is the simplest and most effectual, consists in depressing the

tongue with a proper spatula, and then passing a throat-sponge, consisting of a small piece of this material firmly attached to a curved whalebone stick [here a diagram of the probang is given], and saturated with a solution of nitrate of silver, to the parts that are diseased, so that the liquid may be applied to the whole of the affected surfaces. This solution should vary in strength from half a drachm to a drachm of the salt to an ounce of distilled water; and, most commonly, the latter strength will be most useful. This plan of treatment has been much practised of late years in this country, and with considerable success in a large number of cases.

Some of its advocates, however, not content with curing in this way disease that is visibly seated in the throat, pretend that the morbid action extends down the trachea into the bronchi, and that it is necessary to follow it in these situations. They accordingly speak of sponging and mopping out those parts of the air tube, and of applying the caustic solution to them, as if this were a proceeding that could be adopted with as little difficulty as passing the sponge into the nares. *I cannot believe, however, that this practice, though commonly spoken about and professedly employed, is ever in reality carried out.* Any one acquainted with the physiology of the larynx knows how acutely sensitive it is, and how in its normal state it resists the introduction of any foreign body by the most violently spasmodic fits of coughing; and any surgeon who has seen the effects resulting from the fair and complete inhalation of a drop or two of a solution of nitrate of silver in a morbid and irritable condition of this tube, *must feel sure that no sponge saturated with a solution of this caustic could ever have been thrust down between and beyond the vocal chords.* But not only does physiology and ordinary experience tend to disprove the possibility of such a procedure, but *repeated experiments*, both on the living and on dead subjects, HAVE LED ME TO THE CONCLUSION THAT IT IS UTTERLY IMPOSSIBLE to pass a whalebone, whether curved or straight, armed with a sponge, beyond or even between the true vocal chords. *I have frequently endeavored to do this in cases of cut throat, in which, the air tube having been laid open, the passage of the sponge could readily have been observed, and in which the facility of doing so would have been greatly increased by the larynx being no longer subservient to respiration; but in no one instance have I succeeded in passing the sponge so as to make it appear at the external wound.* In the dead-house, also, I have repeatedly endeavored to pass the curved whalebone tipped with sponge into the trachea, but have never yet succeeded in doing so by employing those manipulations which could alone be practised on the living subject, or indeed by any ordinary degree of force. *From the repeated observations I have made on this point, I have no hesitation in expressing my conviction that the sponge has NEVER BEEN PASSED IN THE LIVING SUBJECT BEYOND THE TRUE VOCAL CHORDS;* though I believe it is possible that in some instances, and with the requisite dexterity, it may be for a moment introduced between the lips of the glottis so as to apply the solution freely to those parts, not however without producing the most intense and spasmodically suffocating cough. I have little doubt that in those cases in which the sponge has been supposed to have been passed between and beyond the vocal cords, and in which the operator speaks of having felt the constriction exercised by these in its entry and exit, it has in reality not entered the larynx at all, but has been passed behind this tube into the cesophagus, the constriction being

produced by its passage beyond the projection of the thyroid and cricoid cartilages, and that the caustic solution has been applied to the mucous membrane in this situation, instead of to that lining the interior of the air passages!

We have used the prerogative of a reviewer, to italicize and otherwise emphasize those parts of the foregoing quotation to which we wish the reader's attention specially directed; although the whole passage is sufficiently amusing and interesting to attract notice.

Mr. Erichsen admits the rationale of the topical treatment with nitrate of silver, grants its efficacy, and sanctions its employment. We ought to thank him, we presume, for this admission; it is something gained for the credit of American science. But that a surgeon of his reputation and apparent information should, at the present day, and to a profession familiar with the practice, deny the possibility of passing the armed probang beyond the vocal cords, is truly ludicrous; we feel disposed to characterize the assertion still more harshly, and consider it as calculated to engender a feeling of distrust in all positive statements made by him. We really do not wish to affirm, that Mr. Erichsen's attempts to introduce the probang into the larynx of the living subject must have been bungling and mismanaged, for we can hardly suppose that so practised an operator, and one so neat in his manipulation, would do any thing either awkwardly or wroagly; and therefore we are at a loss to account for his want of success, unless it should have arisen from an entire misapprehension of the directions given for the performance of the operation, by those who proposed it or are in the daily habit of accomplishing it. Still less are we inclined to attribute his failure to the want of correct anatomical knowledge, or a sufficient acquaintance with the physiology of the region implicated. Perhaps he did not succeed because he did not believe he could. Like the faithless Thomas, he still requires tangible evidence to convince him. If so, let him pay Dr. Bennett, of Edinburgh, a visit, and witness his success; or let his next summer's trip of recreation be across the Atlantic to New York, and he will have the same opportunity of testing the reality of the thing which was lately enjoyed by the illustrious Marshall Hall, previously also a sceptic, who in Dr. Green's operating-room satisfied himself, visually and manually, that—there was no mistake.

But Mr. Erichsen evidently requires some information on the subject: we will endeavor to supply him with it.

"Ordinary experience," far from disproving, daily confirms the practicability and utility of this mode of practice, in the hands of numbers on this side the Atlantic, and not a few on the other. It is employed in many other affections of the laryngeal mucous membrane, besides "chronic inflammations." It has proved most efficacious in croup, in both its varieties, and

for its cure has been resorted to in the case of infants of a very tender age. Our journals frequently bear testimony to this fact.* In pertussis; in poly-pus; nor is it altogether inutile in some forms of epilepsy.

In 1849, Dr. Green demonstrated the feasibility of the proceeding, in the hospitals of London and Edinburgh, and to some members of the profession in Paris.

Dr. Bennett tells us, in his recent work on tuberculosis, that he has succeeded in accomplishing the introduction of the instrument without the aid of the spatula—which frequently occasions more annoyance to the patient by its pressure on the root of the tongue, than the application of the caustic solution—by educating the patient how to hold the tongue and otherwise regulate the position of the parts.

It is a well known and frequently observed phenomenon by those in the habit of employing this treatment, that it is principally in its "normal state" that the larynx is so very intolerant, at least the uneducated larynx, for after three or four trials, healthy larynges may be entered without any unpleasant results. In the diseased condition it is decidedly more tolerant, a fact within the knowledge of every one. Witness the fact, that in disease of the larynx, patients are constantly annoyed by the passage of portions of food or other foreign bodies into the trachea—a phenomenon evidently depending upon the loss of sensibility of the opening and upper part of tube. The impunity with which the application is made in the case of infants laboring under croup is very remarkable. The suffocative cough and respiration in adults is, in a very large proportion of cases, more distressing to the spectator than to the patient, as we have frequently heard them confess; the chief difficulty and annoyance to them apparently arising not from any impossibility of inspiration, which is commonly prolonged and sometimes sonorous, but of perfect expiration and the inability to articulate.

Many men *have repeatedly passed* the probang beyond the vocal cords; and many who have enjoyed the opportunity of seeing Dr. Green operate, *are convinced* that by expert manipulation, *he can* and REALLY DOES PASS THE INSTRUMENT, INTO EITHER RIGHT OR LEFT BRONCHUS, at will. The proof of this latter assertion rests on the following circumstances:—

1st. The length of the instrument employed, and the extent to which it is made to disappear.

2nd. The relative position of the extremity of the instrument, retained between the finger and thumb, in the mouth.

3d. The sensations of the patient; who will usually most intelligently

* See American Medical Monthly, No. 6, p. 401; New York Journal of Medicine, No. lxx., p. 213; Boston Medical and Surgical Journal, Vol. 51.

indicate the position of the sponge, without premonition of the intended direction.

It would be premature in us to refer to proof, resulting from experiment, which we know exists, as to the fact of the presence of the probang and other instruments in the trachea; information on this point will, no doubt, reach the public eye in due season.

It is important for the introduction of the probang, that respiration should be tranquilly and perfectly performed; the expert operator dexterously availing himself of the *moment of inspiration*, to effect the entry and passage of the vocal chords. Recent observations made by Professor Dalton,* completely sustain not only the propriety of this mode of proceeding, but go far to account for its practicability and facility. He affirms that during the act of inspiration, there is a lateral extensile movement of these chords, by which the entrance to the trachea is rendered more patent and oval in form.

Reasoning from these premises, we may perhaps explain why Mr. Erichsen failed in his experimentation in the cases of cut throat. Respiration would, in them, be carried on through the external wound, as we know to be the case in the operation of tracheotomy; hence, the opportunity for introduction would be lost, *per vias naturales*. Moreover, the integrity of the tube and its external coverings being destroyed by the cut, the natural resistance and fixity of the parts, which must undoubtedly aid in the introduction of the instrument, would be wanting. We would not be understood, however, to imply, that even under these circumstances the probang could not be introduced through the vocal cords; for those of our readers who have seen Dr. Buck's reported cases of operation on the larynx,† will remember that, after an opening into the trachea, he applied the caustic solution through the vocal cords.

There certainly are some obstacles to introducing the instrument in the dead subject, arising from the difficulty of bringing the head and neck into the appropriate position, and in retaining the opening of the mouth and fauces, the absence of respiration, and the generally relaxed condition of the tissues. But yet it has been very frequently demonstrated in this manner, and sometimes with great ease. This has very recently been accomplished in Paris in the presence, and for the satisfaction, of M. Trousseau by Dr. Douglas, of this city, who after the introduction of the probang, verified its presence in the trachea by dissection.

We hope and think that we have said enough to satisfy Mr. Erichsen of the feasibility of this operation, or, at least, sufficient to induce him to

* See the American Journal of Medical Science for July, 1854.

† See Transactions of the American Medical Association.

repeat once more his efforts to accomplish that which is done every day, by every enlightened practitioner who has any regard for his reputation for practical skill. And when he shall issue another edition of his excellent book, we anticipate that he will be courteous enough to make the *amende honorable* to those surgeons to whom he has given, in the passage above quoted, such a forcible and unqualified denial of what they state, and know, to be the fact.

We feel disposed to enter our *caveat* to Dr. Brinton's strictures on chloroform, given at page 79, and particularly to his assertion that its use in this country is almost entirely abandoned; but the length to which we have already extended this notice, precludes us from doing so more fully at present; and it may be, perhaps, equally well done in another place, and on some other occasion.

There are many things in this work to admire, and the discriminating reader will be well repaid by its perusal. †

Healthy Skin; a Popular Treatise on the Skin and Hair, their Preservation and Management. By ERASMUS WILSON, F.R.S., &c., &c.: Second American from the fourth and revised London edition. Philadelphia; Blanchard & Lea, 1854. pp. 291.

To write a book on medical topics for popular use, is always a difficult task. There is danger, on the one hand, of running into technicalities which destroy its value to the public, and on the other hand, a danger of leading the public to suppose that they have obtained all possible information on the subject spoken of.

Dr. Wilson evidently felt this difficulty in writing the little work now before us; for it could hardly have been the case otherwise, that he should have so successfully avoided it. It was with some prejudice that we took up the work; and this arose in part from certain notices of the work which we had seen, and in part from the fact that *popular* works do not ordinarily meet our individual approbation. We feel it our duty to say, that all of this prejudice disappeared on giving it a careful perusal. Doubtless some things in the work we should alter, if it were left to us to edit it; but it is in matters of taste, rather than in the fundamental characteristics of the book.

The general hygienic rules laid down by Dr. Wilson for the preservation of the general health, and the benefits to be derived from a careful attention to the condition of the skin, are admirable. Moreover they are

discussed in such a way as to interest unprofessional readers at the same time that they instruct them; and we are confident that most medical men would obtain very valuable hints, either for rules of practice or of modes in which to persuade their patients to observe the necessary rules of personal cleanliness. In the preface the author speaks of the advantages of cleanliness to the poorer classes, and the necessity of providing bathing and wash-houses for them. As these have now been sufficiently tried in England to make the experiment instructive, we can properly quote what he says of their effects, commending his opinions to the consideration of the charitable among us. It is as follows:—

It is too little to say that these institutions are calculated to carry cleanliness into the humble abodes of the laboring classes; they do infinitely more than this—they pour forth a stream of health, of happiness, of loyalty, of thoughtfulness; they elevate the moral position of those whom they succor; and the numberless benefits which they confer are not only enjoyed by those who receive, but are reflected upwards and around upon society at large.

One other good thing will be accomplished by this work, if it is perused by unprofessional readers. The difficult and foreign nomenclature of diseases of the skin has, as much as any thing, led to the great amount of quackery practised in them. The public rarely hear of eczema, impetigo, &c., while “salt rheum” is one of the household words. Neither are there any satisfactory English names by which most diseases can be spoken of to patients. Now, this book will, no doubt, tend to remove some of this popular ignorance; and for this reason, if no other, we do not hesitate to speak of it as a good and desirable work. §

The Dublin Dissector, or Manual of Anatomy, etc., etc. By ROBERT HARRISON, A. M., M. B., T. C. D., &c. Third American from the Fifth Dublin Edition: With additions, by ROBERT WATTS, jun., Prof. of Anatomy in the College of Physicians and Surgeons in the city of New York. [From the publishers, S. S. & W. Wood.]

To those who were first studying anatomy fifteen years ago, we need not speak of the merits of this work as an aid to the practical anatomist. We were wont constantly to refer to it during our pupilage, and consider that ourselves personally, and the medical profession generally in this country, were indebted to Dr. Watts for his additions to the original work, as well as for bringing the latter before the profession. It is, moreover, but justice to say, that the work is now precisely as valuable as it was at that time;

since it was stereotyped in 1840, and we do not discover that any alterations have been made since then.

We cannot, therefore, speak of it as a *new* book, nor as an old one with the "modern improvement" of woodcuts, now deemed almost indispensable in a work on anatomy; but so far as its *matter* is concerned, it still remains, as formerly, a well-arranged treatise for the guidance of the student in his dissections of the human body.

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PART III.—CHRONICLE OF MEDICAL PROGRESS.

[The abstracts and translations found under this title are made expressly for the
AMERICAN MEDICAL MONTHLY.]

Clinical Lecture on Abdominal Subcutaneous Emphysema. BY DR.
O'FERRALL.

THOSE who know most about abdominal tumors, will most readily acknowledge the difficulties which in practice are occasioned by the extraordinary variety in their nature. The student who believes he has mastered the subject of *tumors resonant on percussion*, when he has become acquainted with all those varieties which reside within the abdominal cavity, will discover, when he is, perhaps, least prepared for it, that he has something yet to learn; for the abdominal parietes are liable to a form of swelling, smooth on the surface, resonant on percussion, and of considerable dimensions. And this is *abdominal subcutaneous emphysema*. It is rapid in its formation, and distressing in its effects; and the sufferer will be impatient if any hesitation as to its nature be displayed. I trust, therefore, that the short description which I shall now give you may be sufficient to enable you to recognize this remarkable lesion, when presented for your opinion.

It is, as I have said, rapid in its formation; and the practitioner may receive an early summons to see a tumor as large and as tense as a dropsy; and he may be told that at bed-time, the previous evening, no trace whatever of this condition had been observed. The tumor or swelling may, on inspection, be found to occupy the whole area of the abdominal parietes, as well vertically as in the transverse direction. It may be colorless, or indeed, even remarkably pale. The skin is smooth, even shining and tense. On manipulation, this tension is found to differ materially from that arising from liquid effusion into the peritoneum, or that of an ovarian or other cyst. The integument is tense, but not resisting. The least and lightest pressure

of the finger displaces it; but it instantly returns, and leaves no pit nor trace behind. There may, over the whole anterior middle portion of the abdomen, be no crepitation to mark its real nature; and, as yet, you may have only a suspicion, arising from the difference between the sensation then conveyed and that with which experience had rendered you familiar, in cystic or other liquid accumulations. A light and springy percussion now elicits an unequivocal tympany, but short and faint, and, indeed, unlike any you ever heard before. Still, it is tympany, however faintly marked. You now trace the swelling laterally toward either loin, and here a distinct crepitation is detected. It is similar, in all respects, to that which is met with over the neck and chest, in cases where, from any cause, an abnormal communication is established between the air-passages and the general areolar tissue. This crepitation may, perhaps, be detected also toward the inguinal regions, but is generally absent in the middle portion of the swelling. In the course of this examination, which is rapidly accomplished, you may now discover some blush in the integument, and, further on, a redness of greater or less intensity, and generally of a dusky hue. You are now approaching the real seat and source of the disease. The seat of this discoloration is different in different instances; but we shall suppose that, on approaching the sacral or gluteal regions, you find the discoloration most remarkable, and that here the parts beneath the skin have that peculiar feel to which the term "boggy" has been applied. What history shall you be likely to receive, on inquiry into the case? If the patient has not had competent advice, and has not been made acquainted with the nature of his malady, you will be told that for a long time, perhaps years, there has been constipation, pain in defecation, occasional hæmorrhage, mucous or puriform discharges, and that he has suffered, as he believes, from aggravated piles. You proceed to examine the rectum, and you discover some one of the various forms of organic disease of that part, diminishing and obstructing its calibre, and producing that state which a superficial and imperfect pathology has often described, under the name of stricture, as the essential disease. The emaciated condition of the patient is in accordance with the result of this investigation, and you have now a solution of the problem. There has been, in fact, perforation of the coats of the bowel. The natural attempt to limit, by what has been called adhesive inflammation, the depot thus formed, has failed; or some impulse or disturbance has broken through its lining of lymph, and the cellular tissue has become injected with the gaseous contents of the intestine. If the case has been in competent hands, you will be made acquainted with the fact, that disease of the rectum has been recognized, although the present accident may not have been anticipated.

That which I have now described is one source of *emphysematous* tumor

of the abdomen. The case lately in Mary's Ward is still in your recollection; and you will remember the rapidity with which, in that case, the abdominal swelling was produced.

But suppose the gluteal and sacral regions afford no marks of local disease, you may, perhaps, discover indications of mischief as the fingers approach either groin; and here, or just below Poupart's ligament, you may encounter—first, the crepitation; next, the “boggy” feel; and then you may perceive the dusky discoloration before alluded to. The history belonging to such cases as this will differ materially from that which I have related, as connected with the former example. You may be told that an elastic swelling of long standing, and which occasionally disappeared altogether, has latterly become permanent, and firmer in consistence than before; that vomiting and constipation and pain, have suddenly appeared, and existed for a few days; and that, with or without medical aid, the bowels have become free, and the vomiting has ceased, while the swelling continued to enlarge and to acquire a red and congested hue. Now, what is this case? It is most probably a knuckle of intestine adherent to the mouth of a hernial sac, and having a perforation, or sloughy opening, through which feculent matter has escaped into the sac, and failing to be bounded by plastic inflammation, or from sloughing of the whole sac itself, has been injected with its fetid gases into the cellular tissue. An illustration of this form occurred in Joseph's Ward, about two years ago, and created a considerable degree of interest at the time.

Having traced the lesion to the neighborhood of the groin, you are not to conclude hastily that a hernial tumor is its source; and if the *right* inguinal region be the locality, there is more occasion for reserve on this point. The history may suggest another and very different organic change, as the source of the emphysema. You may learn that a firm and painful swelling has been felt in the abdomen, at the lower part of its right side, and just inside of the hip-bone. That constipation, or great irregularity of bowels, had been complained of, and had been succeeded by sickness or vomiting, with chills or rigors, and a fever more or less strongly marked. That the integuments about the groin had become red and painful, and that extension of the limb occasioned considerable suffering. You may, in fine, have the history of *phlegmonous tumor in the right iliac fossa, or ileo-cæcal abscess*. On examination, you may detect, in addition to the boggy swelling, a gurgling which is transmitted, by pressure, upwards in the direction of the ascending colon. In this, as in the former cases, the lesion evidently consists in the escape of the gaseous contents of the intestine into the areolar tissue.

It is surprising how rapidly the cellular web becomes injected by this

poisonous element. A few hours may suffice to develop a swelling extending all over the front of the abdomen.

The crepitation which is so characteristic of emphysema is, as I have said, not always to be detected in the most prominent portions of the swelling. This would appear to arise from the over distention of the cellular plates, which very soon lose their vitality, and fall into a sloughy state. In one case I had an opportunity of inspecting the parts, which had been destroyed by contact with the deleterious agent; and when incisions are made into such parts, the nature of the change is equally apparent.

The extent to which the abdominal parietes may be occupied by this peculiar swelling will not be the same in all cases, and will depend on its duration. If you are not consulted for twelve or eighteen hours after its commencement, the swelling may then have engaged the entire area of the abdominal surface, and have assumed the smooth, tense, hemispherical prominence alluded to. At an earlier period of its progress it will occupy a less extensive surface, and one half, perhaps, of the abdomen will exhibit this peculiar swollen condition. I have also seen it present a distinct swelling at each side of the external margins of the recti muscles, the connection between those two portions being established by a transverse projection across the hypogastric region. In the case where the swelling occupies the whole anterior surface, the appearance of the abdomen might, to a hasty view, suggest the idea of a cavity tense with liquid effusion.

The practised observer will, however, even here, remark that the umbilicus is depressed and buried in the middle of the swelling, and he will contrast this appearance with that which is displayed in dropsy. In the one case, the umbilicus is sunken and concealed; in the other case, the umbilicus projects, and may be even distended by the liquid within.

It is, notwithstanding, by the careful exercise of the finger, that the diagnosis is to be established. It is to the diagnosis alone, that I now wish to direct your attention. The treatment, as well as a history of its results, will form the subject of another inquiry.

Abdominal cutaneous emphysema is, no doubt, a rare accident in those diseases, in the course of which it is liable to occur. Malignant disease of the rectum may pass through all its stages without perforation of the intestine; and when perforation takes place, it is, in the majority of instances, limited by plastic deposit; and thus the fetid abscess is conducted to the surface by routes which vary in different cases. The contents of the sloughing hernia may reach the surface in a similar way, and an artificial anus be the result. The ileo-cæcal abscess may, in like manner, be uncomplicated with this lesion. The resonance and the gurgling which I have, on a former occasion, described as characteristic of some forms of this

abscess, are entirely different from the diffused and huge emphysematous swelling to which I now refer.

But rare as it undoubtedly is, it has been frequently witnessed in this hospital (St. Vincents), and you should be prepared to recognize it when suddenly presented to your notice.

Emphysema has been described with great accuracy by Hunter, Bell, and others; but the emphysema of authors is that produced by escape into the cellular tissue of atmospheric air modified by the products of respiration. As hitherto observed, it is generally confined to the parietes of the chest and the neighboring regions of the neck, although its extension to other parts of the body is verified by the records of surgery. The emphysema, however, which originates in inflation from the intestinal canal, and most generally occupies the abdominal regions alone, and in this place gives rise to a swelling likely to be confounded with disease of the abdominal cavity, is now, I believe, for the first time described.—*Dublin Hospital Gazette*, March 1, 1854.

Abstract of a Clinical Lecture on Abdominal Tympany. By Dr. O'FERRALL.

Abdominal tympany is met with under various forms; it announces the meteorism of fever, and it accompanies many of the inflammatory and nearly all obstructive diseases of the alimentary canal. There is one form, however, which seems allied to the condition termed hysteria, but which presents some physical characters simulating organic disease, and which requires some patience and care, in order to establish a satisfactory diagnosis.

A girl, twelve or thirteen years old, is brought to you for advice, on account of supposed abdominal disease. You observe that she is pale, but not emaciated, that the abdomen projects unnaturally, and that her mode of progression is very peculiar. The chest is thrown back, the arms hang, the spine is remarkably curved, and the child walks exactly like a woman balancing a large ovarian tumor or gravid uterus. The usual percussion in the erect position, will soon enable you to assure yourself that there is no dropsical effusion into the peritoneum.

You now proceed to examine the abdomen in the horizontal position. Expiration is imperfect, and the respiratory act becomes frequent and embarrassed as the examination proceeds. You remark that the tumefaction is not uniform: a shallow transverse depression running across, a little above the umbilicus, marks the abdominal swelling into two portions.

In a girl, aged thirteen, recently measured, the circumference of the abdomen across the upper portion was 32 inches; across the lower portion of the abdomen, 29½ inches; and across the middle, 27½ inches. The ab-

domen generally feels resisting, and remarkably elastic; the resistance at the right hypochondrium gives a sensation of a more solid nature, and in some instances pressure in this situation appears to make the patient wince. It deserves to be remarked, however, that the seat of sensibility is not always the same in different cases. Percussion over the lower half of the abdomen elicits a loud and prolonged resonance; over the left hypochondrium the tympany is short and more acute in tone, while in the right hypochondrium a distinct and marked dulness is afforded to percussion.

Now, with this evidence before you, to what conclusion can you reasonably arrive? There is no dropsy, and the existence of mesenteric or malignant disease appears opposed by the general condition and expression of the patient. Hepatic enlargement appears the most probable supposition. But the position in which the patient is lying, with the spine arched prominently forward, instead of receding from the pressure of examination, throws a difficulty in the way of this opinion. This want of accordance between the symptoms and physical signs, leads you naturally to examine the thoracic cavity. You proceed to percuss the right chest from above downwards; percussion yields a clear sound down to, and even below, the very margin of the false ribs. This solves the difficulty, and proves that the dulness in the right hypochondrium cannot proceed from enlarged liver; because, if this viscus was enlarged its increase in the upward direction would necessarily have compressed the lung, and produced dulness as high, perhaps, as the nipple.

But there is the hypochondriac tumor; what can it be? If not an enlarged liver, what is it? Why, manifestly, a displaced liver. There is dulness on percussion below the margin of the false ribs, where it ought not to be; and above the margin of the ribs, where it ought to be dull, it is clear. Something has evidently pushed the liver down from its place, and against the anterior walls of the abdomen; what can that be?

It is not any thing contained within the cavity of the thorax. There is no evidence of either emphysema, pneumothorax, nor empyema; and if nothing within the chest has pushed down the diaphragm, in the manner indicated by the displaced liver, it is most likely that the diaphragm must have descended by its own contraction. It is difficult to imagine a strained contraction of a muscle, like the diaphragm, for long periods of time; but there seems to be no other means of accounting for the phenomena. And when we consider the many well authenticated cases of long-sustained muscular tension which have been recorded as having occurred in catalepsy, as well as in the so-called mesmeric condition, it does not appear unreasonable to suppose that such a persisting contraction of the diaphragm and abdominal muscles may be maintained in certain states of the nervous system, and produce physical signs similar to those I have described. Watchful-

ness is often a characteristic of this peculiar condition. In general, it will be found impossible to discover the patients in a state of sleep so profound as to render them unconscious of examination.

In a case of this kind, recently under observation in St. Vincent's Hospital, all other means of procuring temporary relaxation of the muscles having failed, it occurred to me that the cautious use of chloroform might be employed for this purpose.

This was done before the class of pupils, to whom, as an instance of abdominal tumor, the case was an object of peculiar interest. Being very cautiously employed, the chloroform was slow in its operation. The pulse remaining satisfactory, it was persisted in until a condition of sleep was produced. The most remarkable change now took place in the appearance of the abdomen. The recti muscles became relaxed, and sank backwards, until the surface of the abdomen became actually concave. The upper and lower tumors subsided; and now, on percussion, the dulness beneath the ribs was replaced by a moderate degree of resonance, and percussion on the lower ribs no longer sounded preternaturally clear: the diagnosis was complete. As soon as consciousness returned, the tumor was found to possess every character as before described.

Sir Benjamin Brodie has described a curious state of the voluntary muscular system, in which paralysis of the lower extremities was supposed to exist, but in which there is really only required a strong will on the part of the patient in order to develop the seemingly absent power. In practice we frequently meet with such cases; and there is reason to believe, with Sir B. Brodie, that the want of a strong will to execute the power is the essence of the morbid condition. It would be a curious subject of inquiry, whether a condition nearly opposite, of the nervous system, may not exist, in which, with scarcely a consciousness on the part of the patient, muscles known to be voluntary are capable of extreme and prolonged contractions, in defiance of all advice or persuasion, and to the manifest inconvenience, and even suffering, of the individual.

Cases like that here described are occasionally subjected to treatment, a result of erroneous diagnosis, founded upon a hasty or imperfect physical examination. I have known instances where the iodine plan was carried to its utmost limits, in the hope of reducing a supposed abdominal tumor. The treatment should consist of such means as are calculated to improve the general tone of the system and promote a cheerful temper: shower baths, calisthenic exercises, and exercise in the open air. The bowels are, in many cases, regularly moved, although the swelling persists, and terebinthinate purgatives have no effect upon it. I have known the lower swelling diminished by the rectum tube, but the return of the swelling almost immediately succeeds its employment. The chalybeate preparations

are generally indicated by the state and appearance of the patient. Moral treatment is not without its influence; but nothing in this way will avail without obtaining the confidence of the patient in your friendly disposition towards him.

The physical diagnosis is, in those cases, that on which you must rely, to prevent your employing injurious remedies. Now, in a careless examination, physical evidence might create a difficulty; if limited to the abdomen itself, it might confirm any previous suspicion of the existence of abdominal disease; extending, however, the field of its application, physical evidence removes the difficulty, and throws a clearer light upon the physical condition of the organs. Physicians of large experience must be familiar with, and prepared for such difficulties; but the student cannot have too many aids to guide him in his investigation of obscure disease.—*Dublin Hospital Gazette, Feb.*

Report of some Cases of Articular Disease occurring in Mr. Syme's Practice, illustrating the advantages of the Actual Cautey. By JOSEPH LISTER, M.B., London, F.R.C.S., Resident Surgeon to the Clinical Wards of the Royal Infirmary.

CASE I.—*Omalgia; Application of the Actual Cautey; Cure.*

Margaret Ashton, æt. 25, admitted October 25, 1853; a servant; has generally enjoyed good health, and has a very robust appearance. Four months ago, after exposure to wet and cold in washing, she had a severe fit of shivering, and was seized a few days after with pain in the right shoulder, just below the acromion, so severe that she could scarcely lift the arm; this lasted about twelve hours, and was followed in the course of the next day by intense pain in the left shoulder, below the back part of the acromion. From that day till her admission she was unable to raise the arm; the pain was for the first two months extreme, keeping her as if "in the fire all night," and banishing sleep almost entirely. During the last two months she has rested from work, and has suffered less. On admission she complained of constant gnawing pain in the left shoulder, and extending down the limb as far as the elbow, and sometimes to the fingers; when in the sitting posture she held the affected limb with the other hand, to ease the pain; the arm was also affected with a feeling of numbness and weakness; and although the shoulder was not very tender on pressure, and very gentle passive motion of the arm could be performed, through a considerable angle, without pain, yet any attempts on her own part to move it produced great aggravation of her sufferings. As a result, no doubt, of habitual disuse, the muscles about the shoulder were much atrophied, and this caused a remark-

able, apparent prominence of the bony points, viz., the spine of the scapula, the acromion, the anterior border of the outer part of the clavicle, and the head of the humerus. The shoulder had an appearance that suggested at first sight the idea of dislocation.

On the 3d November, the patient being under the influence of chloroform, Mr. Syme cauterized thoroughly the skin over the anterior and posterior aspects of the joint, rubbing a red-hot cautery iron freely backwards and forwards four or five times over each part. It had the effect of raising and rubbing off the cuticle, but did not char the skin. An hour afterwards the patient was suffering but little pain.

Nov. 4. Said, with a smiling countenance, that she slept well last night, the first time for four months, and feels now no pain save that of the burns.

Nov. 5. A poultice was applied yesterday; the pain of the burn is now gone, and she feels *no pain at all*. Says that she has not only lost all pain, but also that the feeling of numbness is gone from the limb, and that she seems to have more power in it. The burned parts present a white, sloughy appearance.

The poultice was continued till the sloughs separated, when simple cerate was substituted for it, with the view of retarding, rather than promoting cicatrization.

Nov. 12. To-day she has been trying to lift the arm, and felt none of the old pain in the attempt.

Jan. 31, 1854. She has to-day left the Infirmary. She has for some time past been gradually acquiring more and more power in the limb; she can move the arm backwards and forwards for a considerable extent, and even raise it slightly. The movements of the forearm are free; there is no tenderness whatever about the shoulder. The return of the use of the limb has been accompanied with a restoration of the fulness of the muscles; so that there is now no difference between the contour of the two shoulders. She continues quite free from spontaneous pain.

I saw her again towards the end of May. She was still quite free from pain, and there remained only some stiffness about the joint, that prevented her from raising the arm to the full extent.

CASE II.—*Disease of Shoulder Joint; Actual Caution; Cure.*

Lily Kay, æt. 50, admitted March 23, 1854. Has generally enjoyed good health, except that for the last twelve years she has suffered inconvenience from what she supposed to be rheumatism in the right shoulder, characterized by shooting pain, occurring more especially when she attempted to lift anything. In January last the limb became completely disabled from increase of the pain, which now assumed a gnawing as well as a shooting character, and also began to be felt in the elbow joint.

and in the arm, forearm, and hand. At this time she first observed the existence of swelling about the shoulder joint.

The pain continued to increase till the time of her admission into the Infirmary, when it was exceedingly severe; not constant, but frequently keeping her awake at night. She was unable to raise the arm from the side, and had a sense of weakness in the limb, and some stiffness of the hand. There was considerable swelling about the shoulder-joint, which was tender on pressure, particularly at the anterior and posterior aspects. On the day of admission Mr. Syme applied the actual cautery freely over the anterior and posterior parts of the joint, the patient being under chloroform. From this time she lost the old pain entirely, or at least was uncertain whether that which she still felt was not altogether that of the burn; and though the pain of the burn was considerable till the sloughs separated, yet it was much less distressing than the old pain, for which it was substituted, so that she slept much better than before the application of the cautery. The slough came away on the 1st April, on which day she had a slight return of the old pain near the wrist; but it has not occurred again, and she is now (4th April) quite easy. The swelling about the shoulder has almost entirely disappeared, and there is little, if any, tenderness; the sores are granulating healthily.

April 14. Continues quite easy.

She was discharged on the 27th April; I saw her about a month after, and she still continued free from pain.

CASE III.—Disease of Wrist Joint: Actual Cautery; Cure.

Janet Archibald, æt. 32, admitted November 2, 1853. Rather a weakly subject. In October last she "took a shivering," without any particular exposure to cold; and a pricking pain came on in the left wrist, which increased for a time, and was accompanied with swelling. She applied poultices medicated with acetate of lead; and under their use a great improvement had taken place at the end of five weeks, when she got fresh cold in it, as she says, and it became excessively painful. The pain continued ever after, till her admission; and although its extreme severity was then somewhat mitigated, yet it kept her awake a good deal at night; it was partly dull and heavy, and partly of a shooting character, and extended down through the hand and fingers. There was also an occasional tingling sensation in the fingers, and a sense of unnatural weight in the limb. A great degree of swelling existed about the wrist joint, particularly on the dorsal aspect; and this part when manipulated gave a feeling very like that of fluctuation, so that her medical attendant had been desirous to open what he had supposed a collection of matter there.

Mr. Syme regarded the condition of the wrist as almost hopeless, but as

he thought suppuration had not yet occurred, he determined to give the limb a chance with the actual cautery; which he accordingly applied on the dorsal aspect in two lines, crossing one another over the articulation. The pain and swelling both diminished greatly during the first four weeks after the cauterization; some aggravation of the symptoms then occurred for a time; but, as the sore was still open, Mr. Syme thought it unnecessary to interfere further; and a gradual improvement afterwards took place, till at the time of her leaving the Infirmary (Feb. 14, 1854) there was scarcely any swelling and very little pain.

I saw her again on the 10th of June; there was then no swelling whatever about the wrist, and no uneasiness except a painful feeling of weakness when she exerted it much.

CASE IV.—*Disease between the Atlas and Axis; Actual Cautery applied with great benefit.*

Thomas Smith, æt. 27, admitted June 20, 1854. Generally enjoyed good health till eighteen months ago, when a stiffness of the neck came on without any assignable cause, with pain when he turned round his head on the pillow; the pain increased greatly, and deprived him altogether of sleep for seven weeks, during which time he lost three stone in weight. There was severe pain in the head as well as in the neck, aggravated to an extreme degree by either nodding or turning of the head, particularly the latter, which, indeed, he at last never did without turning the rest of the body also. He applied to numerous medical men in Birmingham, where he lives; and blisters and caustic issues were repeatedly applied to the back of the neck, but never gave more than very slight and very transient relief; and he says that from the commencement of his complaint he never had one minute's freedom from pain, except during sleep, till he came here.

At this time he was, according to his own account, about as bad as he had been at all. His countenance wore a peculiar expression of mingled suffering and apprehension, as Mr. Syme expressed it. He complained of severe pain in the neck and head, aggravated by any sudden movement, so that there was a great constraint about all his actions. He always kept his head bolt upright, except when in bed, and could neither lie down nor get up without supporting his head with his hands; he never turned his head without the rest of the body; but gentle nodding was not very painful. There was great swelling of the upper part of the neck, and he could only open his mouth a little way; deglutition was extremely difficult, and a remarkable prominence of the bodies of the upper cervical vertebræ was to be felt in the pharynx.

On the day after his admission, Mr. Syme applied the actual cautery

over the spinous processes of the upper cervical vertebræ. The man was not under chloroform, and said he hardly knew whether the pain was greater even at the moment, than what he had experienced from caustic issues; and immediately afterwards he told us that he did not feel the pain of the burn at all. Next day he found less pain in moving the head, and in two or three days his countenance assumed a cheerful aspect. A steady daily improvement has since taken place in his symptoms; and at the present time (July 15) he has no pain whatever when he sits at rest, and can also use strong and active exertion without uneasiness, and no longer requires to support his head in lying down or rising; he can turn his head round pretty freely and look up to the ceiling, and it is only in sudden movements of the neck that he feels any pain at all. The swelling of the neck has greatly subsided, and he can open his jaws wide, and swallow with comparative facility. The sore on the neck is almost healed, and he talks of leaving the hospital in a few days as cured.

Remarks.—The above cases speak for themselves; and I might add several others, that exemplify in an equally striking manner the beneficial effects of the actual cautery in certain forms of articular disease. It will be observed that it is by no means so painful a remedy as is generally supposed, and also that its good effects are more than can be attributed to the mere discharge of pus from the sore which it produces, seeing that a great improvement commonly occurs within a few hours of its application, and long before suppuration is established.

It is now many years since the use of this means of counter-irritation was introduced into Great Britain by Mr. Syme; but although a constant series of successful cases have since continued to demonstrate its value to those who have witnessed his practice, yet I am satisfied that it has not hitherto been sufficiently generally appreciated. Case IV. is an example of its efficacy against a most formidable disease, where caustic issues had been long tried in vain. I believe many limbs and lives have been sacrificed that might have been saved by the actual cautery, and by it alone; and having been myself very strongly impressed with the importance of the subject, I should be truly glad if any surgeon, who may have hitherto overlooked it, should be induced by the above report to inquire more closely into its merits.—*Monthly Journal of Medical Science, August, 1854.*

Remarks on Cupreous Soda Water, with Comments.

To the Editor of the American Journal of Pharmacy:

DEAR SIR,—I saw an article in your last Journal upon the "*Poisonous Effects of Soda Water from copper fountains and lead pipes,*" by J. Ogden Doremus, M.D., in which he states that he "procured several gallons of

the favorite beverage, and submitted it to chemical examination." The substance which first attracted attention was copper. "This was very abundant in soda water obtained from several obscure shops, where it was presumed the traffic was limited, and, consequently, the acid water remained longer in the copper condensers." Persons who are not altogether ignorant of the process in which soda water is made, are aware of this important fact. It is a fact evident, that if soda water be left standing in the copper fountains for any length of time, even a day, it will become impregnated with the copper, especially if the fountain is not lined with tin. Dr. Doremus says, "that a large portion of the soda water which he submitted to chemical examination was procured from obscure shops, where, it was presumed, the traffic was very limited." In such instances it is highly probable, simply from the important fact that it was limited to such an extent, that it would not *pay* to have the fountains re-tinned every year, and new pipes refitted; therefore persons should be very cautious about drinking soda water at all such establishments. Persons who are fond of the beverage should, in all instances, get it from the more respectable establishments, where the trade is very large, as for instance, I have known Messrs. * * * *, apothecaries, of St. Louis, to dispense from fifteen hundred to two thousand glasses per day. In an instance of this kind, the soda water remains in the condenser only a very few hours; and it has been submitted to chemical examination, and was found to be perfectly pure.

Dr. Doremus says, "that he was informed by a resident of St. Louis that, while the cholera prevailed, most persons abandoned the use of soda water. It was a common remark that Mr. — took a glass of soda water and was immediately attacked with cholera." This is all very true, but it was only when Mr. — took a glass of soda water at one of those obscure establishments, which are very numerous in St. Louis.

EDWIN R. SWANN.

St. Louis, Sept. 11th, 1854.

Remarks by the Editor.—In publishing the above letter, it is with some doubts as to its utility; yet, as in the preceding number, page 422, we introduced the paper of Dr. Doremus (which has called it out), without comment, it is proposed now to add a few observations. The leading point in Mr. Swann's letter is, that soda water can be obtained in good order from stores whose reputation for the sale of the beverage enables them to dispose of it quickly, thereby tacitly admitting that even such stores are liable to, if not obliged to, employ apparatus unfit for the purpose, did not the short contact of the fluid render any ill effects from it impossible; and, of course, carrying the inference that in small establishments it would be almost impossible to prevent the sale of cupreous soda water. If this idea was acted on, consumers would be compelled to go to a few establishments for supply, on the penalty of being poisoned otherwise. Now, we believe it is quite possible that good carbonic acid water can be furnished by vendors whose sales do not amount to more than one or two fountains per week; as we know by trial that in thoroughly tinned fountains, with proper tubes,

&c., the water may be kept for weeks without cupreous impregnation. The difference all turns on the conscientiousness of the manufacturer, in attending to the re-tinning of the fountains at proper intervals; and on the pharmacist, in proper attention to the tubes, stop-cocks, and other portions of the apparatus belonging to him. There is no difficulty in ascertaining the condition of soda water, if the apparatus is in fault. The addition of a few drops of solution of yellow prussiate of potash to a glass of the suspected soda water, placed on a white marble slab, or a sheet of paper, will occasion no change, if pure; but if even a minute portion of copper is present, some shade of purplish brown will be manifest on looking down through the fluid, amounting, in many instances, to such a depth of color that the ferrocyanuret of copper separates in flocks. In order to ascertain whether it is the draw-cock, the cooler, or the fountain that is in fault, let the operator draw say half an ounce of the water from the tube connecting the draw-pipe with the cooler, then a portion from the cooler, and a third portion from the fountain directly. Let him then fill test tubes of equal dimensions with each specimen, and add a few drops of the test solution to each, as long as it causes coloration. By comparing the tubes, especially by looking down through the liquid with the tubes held on white paper, it can readily be seen which has the greatest depth of color, or whether the coloration is equal in all; if the latter, the fountain is probably most in fault; if the former, the fountain may be either less faulty, or, in some cases, faultless, in which instances the water drawn from it gives no coloration at all.

In our opinion mineral water should only be sold by persons who know how to test it and have the means at their disposal; hence apothecaries are, as a general rule, better qualified than confectioners, grocers, and others; yet so extremely careless are some apothecaries of their apparatus, that often, without being aware of it, they vend cupreous mineral water, and occasion inconvenience to their customers. The simple test above given should be known and regularly applied by all who sell this beverage; and as the apparatus used at most of the small dealers is owned by the manufacturers, and hired to the dealers, the latter should protect their reputations by insisting on having the water capable of standing the test above noticed after two days in use. We believe the source of the dissolved copper is more frequently in the cooler and stopcocks than in the fountains; and where these belong to the vendor of the water, the remedy of course rests with himself.

As regards the use of tinned copper fountains, there is no real objection, provided they are kept properly tinned. It would be a great improvement, if, as suggested by Dr. Doremus, these vessels were made in two sections or hemispheres, with flanges securely bolted together, with gutta percha or

gum-elastic packing between; so that the druggist himself could inspect their interior when desirable. The chief cause of the use of imperfectly tinned fountains is the expensiveness of re-tinning them, and the difficulty of inspecting their interior, owing to the solder joint. For the reason of its tenacity, durability, and lightness, copper is greatly preferable to the other metals for this kind of apparatus, where it has to be transported from the manufacturer to the retailer; and it is worthy the attention of our druggists and coppersmiths whether fountains cannot be eligibly constructed so as to be taken apart at will, and rejoined by bolts. We will suggest, as an improvement, that the lower section of the fountain be a cylindrical vessel strengthened by iron bands, with a hemispherical bottom, and furnished with a horizontal flange above. The upper portion to be a simple hemisphere, of dimensions similar to the other, with a flange to fit that of the other portion; and the two brought together on a ring of gum-elastic packing cloth, by means of a pair of ring clamps, with screw bolts, at intervals of three or four inches around their circumference. The stopcock should of course surmount the upper hemisphere; and it would be well that the tube descending from it to the bottom of the fountain should be entirely of block tin, if it could be supported in any way compatible with the amount of motion and jarring to which the fountains are subjected during transportation. One difficulty in the way, is the necessity of using brass stopcocks. Although the interior surface can be tinned, it is more liable to become exposed and is more difficult to inspect than open surfaces. In reference to the tubing for connection, there is no difficulty in having the short connection, from the drawcock to the cooler, of silver, or at least of tin; but in that from the fountain in the cellar to the cooler, a distance of seven to ten feet, the necessity for some substitute for lead is not so easily overcome. We have used gutta percha tubing for several years past, but it is liable to crack longitudinally near the connecting joint, and at first, in the experience of some, gives a peculiar taste to the water, which, however, ceases by use; block tin is better, or lead lined with tin. Mr. Simes, of this city, who we believe manufactures his own carbonic acid water, employs cast-iron fountains lined with enamel, which are unexceptionable, so far as we know, when they are not to be transported; their great weight rendering them ineligible in that case. Such fountains are hung on lateral pivots, like a cannon with its mouth up, which enables the operator to agitate their contents when desirable.

Although we do not think the sweeping remarks of Dr. Doremus are quite correct; yet we believe they will do good by directing the attention of the public, as well as the vendors, to the subject, and cause better arrangements to be adopted and more care exercised.—*Am. Jour. of Pharmacy.* Nov. 1854.

Study. By Mr. JOSEPH INCE.

[We find so much good sense in the following, from the *Pharmaceutical Journal*, for June, 1854, that we cannot but give it an insertion; at the same time especially commending its ideas to the careful consideration of the younger members of the profession.—ED. A. M. M.]

Half the intellect of London has arrived there with a few shillings and a carpet-bag. Its great writers, statesmen, merchants, adventurers of every kind, down to its great chemists, have travelled on the same stage-coach. Family distress, narrowed opportunities, and sometimes actual want, have been the best heritage of many of our illustrious men. It is for us with a laudable ambition to follow their example, and to act in our turn as they have done before; in furtherance of which object a theory is offered, and its practical results worked out, addressed exclusively to those assistants who have little time, no competent advisers, and no friends. Such an one on first being introduced to the subject, would infallibly remark, "These excellent discourses read very nice on paper, difficulties surmounted make great men; but I am nothing but a druggist's assistant; I have early and late hours, while my time is not my own. The tide of fortune might roll my way in vain, for I have business to attend to, pills to roll out, and physic to make up. Besides, I have a strong notion that retail pharmacy contracts the mind; drugs and success in life form no amalgam. If some good friend would kindly leave me a legacy, or people have no medicine after eight o'clock, I might perhaps then read a little, do something, and improve." Of course after this statement you naturally feel better; so now, will you just let me give you my quiet mind? What makes success? and who are the men who gain it? Every one knows who fail. Give a man plenty of time and sufficient money, and he will in general make no use of the first, and waste the second. Great natural opportunities, an easy access to society, friends, a crowd of teachers, a ready-made position involving no struggle and no anxiety, shut out for ever the most distant hope of extrication from such a Capuan luxury. It is a fatality to be born with white kid gloves. To all this there are bright exceptions, but so few that they only prove the rule; nor do these works apply to hereditary rank, where habitual cultivation and contact with elevating circumstances produce noble specimens to the contrary. The past is the great teacher for the present; nor is there a more consoling thought, than that what man has done man may do. Physic has not the contracting influence you imagine. An assistant like yourself, while in a suburban district, managed to become as brilliant in literature as he now is high in law; and it needs some self-denial, on the part of the writer, to refrain from citing endless instances.

So much for intellect. Infinitely more to the purpose it is to know, that those who never left their original calling, succeeded in it with no greater advantages than you possess. The names best known are the most appropriate illustrations, though personal mention would be both invidious and indelicate. All first-class chemist's establishments are now so interwoven and associated with daily city life, that each separate firm, with its owner and reputation, seems part of the current course of events. But there was a time when these very houses were not in existence. Their directors were hard-working, persevering, determined assistants, with not a tithe of the advantages of the present day. Education had to be dug up. The scanty Latin of their youth was mystified in an unintelligible grammar, which has only been swept away within the last few years. Greek was considered a language well adapted to the Athenians; and an austere schoolmaster who taught for his salary, was not likely to awaken a strong interest in general knowledge. After this pleasant commencement, the young beginner was apprenticed to a chemist, because his parents thought it *such a nice, clean business*; accordingly, the tyro found himself immediately smothered up to his eyes in white, red, and blue paint, not unlike the clown at Astley's, happy to present himself to society not too redolent of varnish, and, having escaped the oil-can on the one side and the black-lead on the other, allow a comprehensive apron to cover all deficiencies for seven long years. He then came to London. No institution taught him any thing, no good and cheap books instructed him. There were museums for surgery, anatomy, and geology, but none for him; there was less time than there now is, and rougher work. What then? The battle of life was before him, and he won it. Success, almost barricaded, was carried by assault. Fame was not an heirloom in the family, it was gained slowly but surely. The shop, though draughty enough in all conscience, was never favored by some special gale from heaven which swept in the customers, advertised the drugs, and improvised a reputation; yet somehow or other the new house and its owner by degrees gained itself a name, passed into a household word, and became as well known as St. Paul's Cathedral.

Study was the talisman which wrought the enchantment. One hour a day devoted for three years to regular, uninterrupted, systematic reading would enable you to reach the limits of your ambition. Three years! what an age! But unimproved or not they *will* go all the same; so why not make the best of them in passing? The sole question is, can you get one hour. Such is the internal constitution of some houses, that it is quite impossible. On this subject we are fearful of being led astray by temporary excitement, which would gain no object, but simply create annoyance. We believe it to be the interest of none but the gas companies to commence business before the day-dawn, and protract it beyond the dead of night. It

is the interest of masters to have the cordial sympathy of their assistants, and not their unwilling services. It is the interest of the public to be served by an intelligent being, and not by a spectral incompetent. It is the interest of the assistants to have the requisite time for improvement here, and the opportunity for attending those sacred duties which are to fit them for hereafter.

Now for a few practical details: ten pages can be well read in one hour. "Why, bless us all, I can read fifty without the slightest trouble—thirty at least." In "bless-us-all gentlemen" we have little confidence; the first month finds them at work like a steam-engine, the second at the bottom of their beds. They are like those remarkable young ladies who learn French in three months, pick up Italian on their way, and take German at a hand-gallop—a process which causes a slight embarrassment to the respective natives.

Returning to the decimal system, which is after all the best, a short tabular view may tend to enlighten the subject. One month contains in round numbers thirty days, consequently ten pages every morning would be 300 pages a month, from which the following *average* result might ensue:—

Pereira's <i>Materia Medica</i> . . .	1900 pages	6 months.
London Pharmacopœia . . .	550 "	2 "
Christison's Dispensatory . . .	950 "	3 "
Thomson's Dispensatory . . .	1150 "	4 "
Brande's Chemistry . . .	1500 "	5 "
Turner and Liebig . . .	1240 "	4 "
		<hr/>
		2 years.

The whole of these are books of general reference.

Supposing that one hour would only master six pages a day of chemical works requiring more than ordinary attention; then 180 pages would be read each month, and 2160 pages in a year, which would include the following:—

Fownes' Chemistry	550 pages.
Gregory's Outlines	560 "
Royle's <i>Materia Medica</i>	700 "
Fresenius' Analysis	350 "
	<hr/>
	2160

Nothing now remains, to make this table accurate, but to correct for pressure of time and density of head.

It will not be supposed for a moment that the mere reading of these books will constitute a well-grounded acquaintance with their contents, but the list shows that there is a possibility of accomplishing far more than is

generally supposed in a very limited space of time. Few, indeed, would have courage to drag through some of the ponderous volumes enumerated; nor would such a herculean task be advisable. Such calculations are necessarily imperfect, though useful; as there may be interfering circumstances, over which there is no control. Sickness will sometimes throw its shadow over the brightest hopes. It may be a fancy, but we have always felt the toilsome nature of unassociated chemistry, and therefore suggest the following plan:—

Allow one hour, every other day, to the consecutive, continuous reading of *one* outline work, by which means you would triumph over 150 pages a month, and 1800 pages in the year.

It is usually desirable not to pore over the same manual too often, after having once carefully perused it; but to commence another, which, though treating on the same subject, is expressed in different words. There are few introductory treatises of more than 600 pages each.

At the same time, it is well to know that an occasional dip into one book, varied by a short reading of another—a snatch of Brande, a glance at Daniell, a look into Fownes, and a general survey of Gmelin, Parkes, or Faraday—will consume the same amount of time, and lead to nothing.

No one can hide from himself the absolute necessity at the present day of being acquainted with at least the elements of French and German. The two languages have become of trade importance, to say nothing of any intellectual enjoyment they may afford. The time will be well spent that is devoted for three alternate mornings to the hard study of the first. Now our imaginary assistant looks unwell, and delivers himself as follows: “Yes, very good, if I had learned at school; but they taught nothing there but Latin, of which I only recollect the first page of Cæsar’s Commentaries. It would cost two or three guineas a quarter for a master, and I should be ruined in grammars, dictionaries, and books of reference; besides which, you can never persuade me that I can learn French in one hour a day.” No, very likely not; but you will soon convince yourself of that important fact. Perhaps you have seen the title of a pamphlet, “Plenty of Work, and how to do it.” The *modus operandi* is as follows: Buy a Cobbett’s Grammar. Read it through and through until its chapters are burned into your mind, and when the excitement of a new impulse ceases, wade through its dreariest details with still untiring energy. London is a wide place, containing all sorts of people, nor is there any difficulty in meeting with Frenchmen as acquaintances. More could be learned from them in casual intercourse, than by any other means. From hence you cannot move a step without a teacher; no very alarming undertaking, as the slightest arrangement with two or three others similarly disposed would secure his services at a trifling cost, while to those living in

the city, opportunities obtrude themselves unsought. Having gone thus far, devotion would suffer little were you occasionally to attend the services of a foreign church.

The first year closes, during which a good insight into Elementary Chemistry has been gained, as well as a tolerable advance into the rudiments of French. Union is strength, and on this principle some book should occupy the second year, which contains the best combinations of Chemistry, Pharmacy, and Materia Medica; of which, perhaps, there is no better specimen than Pereira's "Elements." If it be possible, borrow it; if not, club together and buy it, for it must be had. The three alternate days still remain for disposal. For the second year it would be an useful variety to allot one hour a week to German, the other two being claimed by French, as usual. One of the best grammars is by Dr. Tiarks, price six shillings; but dictionaries, manuals, and all sorts of foreign books may be picked up for a very little at a bookstall. Personal reserve is the only hindrance to companionship with some of the numerous resident Germans. Need it be mentioned, that the best aid to study is at your own disposal? Buy any foreign work and its English version, then constantly translate and retranslate alternately from one to the other, correcting your attempts afterwards by the book in hand—for instance, "*Les Confidences*," by Lamartine, or "*Undine*," by De La Motte Fouqué. Children's books are not to be despised; they are at first of greater service than Racine or Schiller.

The prospect brightens as the drudgery of elementary study is gradually left behind; and on the third year it would be no presumption to enter at once on those works in which the first principles of pharmacy are carried out to their legitimate application, such as "Watson's Principles and Practice of Physic," or Bowman's "Practical and Medical Chemistry." Perhaps now is the best opportunity of understanding and tracing out the different preparations included in the various pharmacopœias, for which the summary presented by Mr. Squire will be no small assistance. The two languages may also be studied together; but by this time they will have become an integral part of reading, not a separate branch. To gain this point will amply compensate for the hardships of the struggle; nor can we express a kinder wish for the student than the inheritance of such joy, recollecting that a contented mind is a continual feast. All this may be realized by one hour's application. Botany has been intentionally omitted, as it requires for its right study ample leisure and out-door speculations.

To those gentlemen who have time at their own disposal, who have free access to museums, libraries, and lectures, and are surrounded by all the appliances of learning, these remarks may seem absurd; but they are intended alone for those who have very scanty time and most limited opportunities. Weary, indeed, beyond description, is the manual occupation of

ignorance. Can there be a harder fate than with an empty mind to associate with a row of monotonous bottles, a gas-jet, and unmeaning implements of coction? If you but knew the heaven you could create within you by this practice of habitual study! Knowledge turns the meanest circumstances into sources of enjoyment. Under such influence the solitary chamber brightens up, the charm of the Casino fades, and an inward satisfaction finds its expression in acts of good-will and courtesy in daily life.—*Pharm. Journ.*, June, 1854.

A Case of Quadruple Birth. By S. KENNERLY, M.D., Augusta County, Virginia.

On the night of the 5th of August, I was called to see Mrs. W., supposed to be in labor. On my arrival I was informed by my friend, Dr. A. Waddell, who had also been called in, that he had just delivered the head of a child, which had been expelled feet foremost, the head being retained. He was told that it had been in that position for two hours. Upon examination, we found that there was a second child inclosed in its membranes; and as there had been no recurrence of pain since the partial expulsion of the first child, and the mouth of the womb being entirely relaxed, we concluded that the safest plan would be to administer ergot, and complete the delivery. We accordingly gave her 3 i of liquor ergotina, prepared by Purcell, Ladd & Co., which quickened and increased her pain; and in three quarters of an hour the second child was expelled, followed by a subsidence of pain. On examination, we found a third child presenting, breech foremost, with no membranes around it. After waiting half an hour, and no pain recurring, we brought down the feet, and repeated the liquor ergotina in the dose of 3 ss, and in half an hour the third child was expelled. On examination, we found a fourth child presenting, head foremost, which was expelled in about twenty minutes, inclosed in its proper membranes. There were two distinct placentas, and they soon followed the birth of the fourth child. One was very large, and divided into three distinct lobes, each lobe having its respective chord attached to its centre. The smaller placenta was a little larger than either lobe of the larger placenta. The children (three boys and a girl) were all born alive, but neither lived over fifteen minutes. I suppose they were not viable, for they were evidently born too soon, though they were perfect in every respect, so far as I could judge. The finger and toe nails were perfect. They weighed nearly eight pounds next morning, and measured sixteen inches in length. Mrs. W. did not expect to be confined until the latter part of October next, and thinks she quickened about the

middle of June. So the children must have been under seven months. She did not suffer as much as in either of two former labors of single births, and is doing remarkably well. What seems a little singular is, that there should have been a total suspension of uterine contractions for two hours after expulsion of first child, even while its head remained in the vulva, and the second child protruding from the womb into the vagina. I think that the second and third children were inclosed in the same membranes, though their cords were each attached to its respective lobe of the larger placenta. There was but little hæmorrhage, and the womb contracted well after the expulsion of the placentas.

Since the occurrence of the above case, I have attended three other women in confinement, two of whom had twins; neither of which cases possessed any particular interest.—*Stethoscope*, August 24, 1854.

Etherization in the Treatment of Insanity. By DR. RAY, Butler Hospital, Providence, R. I.

(Read before the Association of Superintendents, May, 1854.)

The remarkable effect of etherization upon the nervous system, under certain conditions, naturally led to trials of its use in the treatment of mental disease. The result, at first, was not such as to recommend it to favor; and now, I apprehend, it is seldom used in our hospitals for the insane. Several incidents contributed to this result, which should be thoroughly considered before making up a final judgment on the matter.

In the first place, probably too much was expected of it. Its wonderful power of annulling sensibility seemed to warrant an expectation of speedy and signal benefit in the treatment of mental disease; and therefore, when the patient, after a few trials, was apparently but little, if at all improved, it was too readily concluded that etherization furnished no new resource in this department of the healing art. In the disappointment of these undue expectations, the fact was overlooked, that, though it could not immediately arrest an attack of insanity, it might, nevertheless, if skillfully applied, accomplish some very important objects in the restorative process.

It is doubtful, too, if it were always correctly administered. The much greater quantity required to affect the insane must have often led others to believe, as at first it did myself, that, for the most part, the insane are not susceptible of its influence, or, at least, not to the same degree as the sane. The early direction to sprinkle a little of the fluid on a napkin, and hold this to the nostrils, utterly failed to bring out its peculiar properties. In

Dr. Brigham's account of his experiments with ether,* it is obvious that, in not a single instance was the patient completely etherized. In fact, they were all as far from it as they would have been from narcotization, after taking a few drops of laudanum.

It has also been generally supposed to be unsafe in recent cases; and hence its effects have been seldom witnessed in the class of patients most likely to be benefited by it. In a few instances, too, it was reported to have produced new and more disagreeable manifestations of disease, such as suicidal propensity, painful delusions, &c.

From these various causes it has happened that etherization has not had a faithful trial in the treatment of insanity, and, consequently, that its real efficiency has not been discovered. The utter impotence of other remedies to control some of the graver manifestations of disease led me, about five years since, to resort to etherization; and within that period I find, by examining our records, that it has been administered in the Butler Hospital to about twenty-five patients, and, altogether, about two hundred and twenty times. Few among us, probably, have had an ampler experience with the article than this; and it has struck me that I could not better employ the occasion than by giving some account of it. To relate every case would, of course, be impracticable, and I must therefore content myself with a general summary of results.

In the treatment of recent cases, I have found it more reliable than any thing else in combating certain conditions, and inducing others more desirable. We have all, I presume, had ample reason to know how little we can depend on opium, or any other narcotic, to allay that intense nervous excitement sometimes present, leading to incessant movement, violent agitation, and sleeplessness, and which calls for speedy relief, because it rapidly exhausts the vital energies, and while it lasts, is incompatible with any restorative process. For myself, I am quite satisfied that they usually make the matter worse. Neither have I seen much benefit from the cold or hot bath, both of which have been strongly recommended for this purpose. Accordingly, when we had placed the patient in the bed-strap, and thus rendered jactitation impossible, we felt that we had done about all which the resources of the art permitted. It was certainly better than nothing. It sometimes calmed the excitement, and thus prepared the patient for sleep. It prevented disagreeable bruises, and kept him out of harm. But nobody will contend that, as a remedial measure, it was often followed by much success. The patient will not always get sleep in this manner, and restraining apparatus will frequently chafe and become inadmissible. When the nervous condition, here referred to, proceeds from some form of that acute

* See Vol. iv., p. 73, American Journal of Insanity.

maniacal affection now so common in our hospitals, the danger is imminent, and relief must be speedy. Night after night is passed without sleep; food is loathed and rejected; the vital forces are being rapidly consumed; and symptoms of dissolution appear, almost before we are aware of any danger. Every hour, while this condition remains, renders recovery less probable; and only a few days are required to decide the event. Any contribution to our means of relief in this class of cases, must be cordially welcomed; and such a contribution, in my opinion, is the inhalation of ether. If it has not always effected recovery, it has never failed to alleviate suffering, and render the necessary attentions more easy and gratifying.

In the early periods of the ether discovery, its use was supposed to be unsafe in acute mania; but my experience has not confirmed this opinion, for it is in this form of disease that its benefits have been most decidedly manifested. Nor am I aware of a single instance in which it could be charged with accelerating the progress of disease, or producing any other disagreeable effect. Etherization for the purpose of curing mental disease by some specific operation, as quinine cures intermittents, will seldom succeed, and I have never used it with precisely this end in view. What I contend for is, that certain conditions which may accompany insanity are removed by it with unexampled success; and to these I shall briefly advert.

We all know that the insane are sometimes so far under the dominion of imaginary terrors, that they lose all self-control, and exhaust themselves in their efforts to escape the threatened evil. An old man, habitually calm, was at times so overwhelmed by the idea that enemies were after him, that he cried, screamed, and labored with all his might in moving about his furniture back and forth, while every joint trembled, and perspiration ran down his body in streams. In a few minutes after beginning to inhale ether he was plunged into a deep sleep, and for twenty-four hours or more enjoyed a truce with his terrors. Another, suffering under acute maniacal disease, and manifesting the same trait, was wont to seize upon the attendant when leaving the room, as if afraid of being left alone. On one occasion, so strong was his grasp that the attendant found it impossible to get away. Another, and still another, came to his aid; and these three men labored to disengage themselves, until they became exhausted and powerless. At this moment the assistant-physician happened to come along, and seeing the trouble, immediately etherized the patient, and thus put an end to his terrors and to his agitation.

We have all, no doubt, experienced the difficulty of introducing the stomach-tube, against the utmost resistance of the patient. Broken teeth and bleeding lips are not the most disagreeable among the consequences of such an operation. The moral impression is inconceivably painful, and not calculated, while it lasts, to promote any restorative process. Etherization

prevents all resistance; the mouth readily opens, the tube is quietly thrust into the stomach, while the patient may not even be aware of what has been done. With my present views upon the matter, I should always resort to etherization whenever the patient refused to be passive under the operation of introducing the tube.

The introduction of the catheter, too, when required, is sometimes so strongly resisted as to become exceedingly embarrassing to the physician, and painful to the patient. The matter is still worse when there exists a stricture, or any other abnormal condition of the parts. Under such circumstances, etherization proves to be an invaluable blessing, for it enables us to perform a painful and dreaded operation as quietly and easily as the most acceptable service.

In chronic cases the occasions which seem to require its use are not so frequent, but I have sometimes resorted to it in order to break the force of the violent paroxysms by which many of them are marked. Such persons are thus rendered more comfortable, both to themselves and to others, and that, too, without the sacrifice of any important point. A female patient, who has been with us from the beginning, has a paroxysm once in five or six months, when she has always manifested an extraordinary degree of noise, violence, destructiveness, and malice. She may have slept an hour or two in the twenty-four, but the rest of the time she was incessantly stamping, pounding, vociferating, abusing everybody, and resisting the most necessary attentions. Narcotics were thoroughly tried, with but little, if any, benefit. By etherizing her at bed-time, she would get a quiet night, was far less wild during the day, refrained from destroying her clothing, and could be easily handled by a single attendant. In one case a single etherization was sufficient to convert a patient, remarkably noisy and agitated, into one of the most quiet in the house.

In suicidal cases, accompanied by much nervous excitement, etherization at night is peculiarly appropriate, because it enables the patient to sleep, and furnishes additional security. In one of the severest I ever observed, and which was also accompanied by a strong homicidal propensity, it was used with the happiest results. For several months her own safety required that an attendant should be near her perpetually; and, not unfrequently, this was insufficient without mechanical restraint. The night was often spent in struggles with the attendant who slept, or rather stayed, with her, with such physical and moral consequences as might have been expected. She lost flesh, her pulse rose, and countenance became wild and haggard. All other treatment failing, we thought of etherization; and it was one of the first cases in which I used it. Given at bed-time, its effect was a quiet night, several hours of sound sleep, and a well-marked improvement during the day. Under its use two or three weeks, this improvement passed into

decided convalescence, and in the course of two or three months it was impossible to discern a single unhealthy manifestation. She was then discharged, and not long after was married.

These results of etherization certainly recommend it to our attention; and if they are confirmed by the experiments of others, it is evident that we possess an invaluable remedy in the treatment of mental disease. If it is to be despised because it fails to procure immediate recovery, then it may as well have never been discovered. The world, however, is united in believing that its power to abolish pain under the operations of surgery renders it a signal blessing to man; and it will regard our conduct as neither humane nor judicious, if we despise its aid in suspending the still greater pains of insanity.

The anæsthetic agent which I have used is rectified sulphuric ether. It is unquestionably the safest; and, with the single exception of the comparative slowness of its operation, it is not inferior, in any respect, I apprehend, to any other. The patient lying on his back, the ether is poured upon a sponge of a cup-like form, which is applied in such a manner that the hollow completely embraces the nostrils, care being taken to allow the ingress of a sufficient amount of air. As fast as the fluid is dissipated, it may be supplied by pouring from a phial. Complete etherization is effected in a period varying from half a minute to five minutes, and requires from half an ounce to two ounces. The quantity required depends more upon the quality of the article than it is generally supposed. Ether made by the druggist who furnishes me with whatever is required in his line—A. L. Calder, of Providence—was found to possess three times more efficiency than that obtained from Philadelphia. It is probable, too, that the more potent the article, the purer it is, and that the fatal consequences which sometimes follow etherization are owing to the impurity of the article used, rather than any idiosyncrasy of the patient. However this may be, whoever begins the use of ether with a poor article will be more likely at last to abandon it entirely, than retain it as one of the most satisfactory means within his reach for combating some of the most intractable manifestations of mental disease.

The apparent effect upon the patient under its immediate operation is tolerably uniform. When completely etherized, he becomes insensible and unconscious, and seems to be in a deep sleep. In this condition he remains, in most cases, about twenty or thirty minutes, but not unfrequently from two to four hours. He then wakes up, looks around, talks perhaps, and usually passes into a sleep of a more natural character, which may continue for several hours. If he remains awake, however, he is comparatively calm and quiet for several hours; when the occasion for the remedy is generally renewed. When used for the purpose of subduing excitement, and pro-

curing sleep, the best time for administering it is in the evening, for the simple reason that sleep and quiet are more refreshing when procured during the night than during the day. Of course, the ordinary precautions should be observed. I should hesitate to etherize a patient whose pulse intermitted, or whose lungs were supposed to be seriously diseased.

In using ether by lamp-light, it should be borne in mind that it is highly inflammable, and therefore must be kept at a considerable distance from the light. I have known it to inflame when being poured from a jug, though at least three feet from the lamp.

So far as my success with etherization may be attributed to the manner in which it has been administered (and I am inclined to think that much depends upon this), the credit is properly due to my assistant, Dr. Ranney, who, by frequent and careful practice, has obtained all that skill which is necessary to the highest degree of success.—*American Journal of Insanity*.

Expulsion of a Coin from the Larynx by an act of Coughing: with observations. By T. G. GEOGHEGAN, M. D., F. R. C. S.: Surgeon to the City of Dublin Hospital and the Hospital for Incurables, etc., etc.

The following instance of foreign body in the larynx, I propose to append to those already recorded by me in this journal.* I do so the more willingly, as the selection of the line of practice suitable to such an emergency is not unusually attended with difficulty. In a case in some respects similar, the treatment sagaciously devised by Sir B. Brodie attracted much attention. It will be remembered that the celebrated engineer, Mr. Brunel, while performing some tricks for the amusement of children, had the misfortune to draw into his larynx a half sovereign which he had placed in his mouth. The coin ultimately became engaged, as was believed, in the right bronchus, and was finally expelled, some days after the accident, by inversion of the body, preceded by tracheotomy. In the following case a fourpenny piece was disengaged from the larynx by cough, occurring while the patient was in the stooping posture. A healthy lad of 17, admitted into the City of Dublin Hospital, stated that during a quarrel with one of his fellow servants, having at the time in his mouth a sixpence and a fourpence, he spat out the former coin, while the latter disappeared. He was immediately seized with cough, of such violence as to produce epistaxis, and great difficulty of breathing, both of which, however, speedily subsided. He was seen two hours after the accident, and was then aware

* Dublin Medical Press, vols. xi, p. 103, and xxi, p. 49.

that the coin had entered the windpipe. While at rest, he suffered no inconvenience, and the breathing was quite unaffected. When desired to cough while in the erect or sitting position, a peculiar valvular or obscure rattling sound was distinctly audible in the larynx. The stethoscope placed on the organ did not render this at all more perceptible, nor could it be elicited (save on one occasion) while the patient was in the horizontal posture. It somewhat resembled that which attends an unsuccessful effort to expel a mass of tough mucus. Respiration was of equal intensity under both clavicles. During the night he had a few fits of coughing. On the next day the symptoms were in all respects the same.

In considering the mode in which the case should be dealt with, and reflecting on the uncertain issue of the natural expulsive efforts, the possibility of their leading to sudden suffocation of the patient, by impaction of the coin in the glottis, or the risk of the body being transferred to the bronchus, it appeared to me inexpedient to temporize.

The physical signs seemed to indicate pretty clearly that the coin was seated in the larynx.*

I proposed, therefore, to make a suitable opening in the crico-thyroid space, and should the foreign body be readily seized, to extract it by the forceps. In the event of this manoeuvre not proving successful, the expedient of inversion of the body, aided if necessary by percussion, was to be then resorted to. By this mode of proceeding, I had hoped at once to gain more direct access to the offending substance, and to save the patient the more dangerous operation of tracheotomy. In order to give full effect to this method, it would be necessary, before opening the crico-thyroid ligament, to effectually restrain any hæmorrhage arising from the laryngeal branch of the superior thyroid artery, which, though small, often bleeds rather freely; and also to have the patient carefully maintained, as far as possible, in the

* Morbid growths in the larynx, when pendulous, give rise, in a modified degree, to the symptoms of foreign body. An interesting example lately presented itself in an hospital patient of mine, who died of another disease. He had been subject for some years to attacks of irritative cough, uneasiness referred to the situation of the thyroid cartilage, and latterly almost complete aphonia. I found, on dissection, a soft, lobulated growth of rather considerable size, translucent, of a light gray color, and strikingly similar to nasal polypus. It was loosely attached by a narrow pedicle to the middle of the lower chorda vocalis of the right side. A similar but smaller and sessile tumor was observed on the left upper one. I believe that growths of this nature are rather rare. If the disease admitted of an accurate diagnosis, it might possibly, in some cases, fall within the range of operative surgery. When the morbid growth becomes detached (as in the case of tuberculous mass, which I have recorded in the Medical Press, vol. xi., p. 103), the symptoms will of course be essentially the same as those observed in cases of foreign body introduced from without.

horizontal posture, during the employment of the forceps, and subsequently, until inversion had been practised, if necessary.

Although the course above proposed, received the assent of my colleagues and other surgical friends, it by no means satisfied the patient, who, notwithstanding suitable explanations, withdrew from the hospital disconcerted. He returned to his employment, and on the morning of the third day, fifty hours after the accident, while stooping in the act of washing a carriage, he was seized with a fit of coughing, and expelled the coin. This he returned to exhibit with a certain amount of triumph.*

The instance now recorded, may be considered as one of those less common cases in which a foreign body has been expelled from the air-passages by natural efforts. As such a result, however, must be altogether fortuitous, it cannot, according to my judgment, be construed as affording a precedent for withholding an operation on similar occasions. This view will, I apprehend, be readily conceded by those who are conversant with such accidents; for there is perhaps no occurrence in surgical experience, the results of which are more varied, and sometimes more unexpectedly fatal, than that in question. In some instances, where the body, in entering, has been caught in the glottis, and possesses a suitable figure, complete obstruction and immediate death result; in others, having passed the aperture, it may become engaged in the ventricle of the larynx, or the crico-thyroid hollow; or finally, it may descend into the bronchus. In the latter case, as the interbronchial crest deviates to the left of the median plane, the foreign substance will generally occupy the right bronchus. Should it be a light substance, it may be dislodged from thence by the unassisted efforts of coughing, and be either fortunately expelled, or kill the patient by becoming impacted in the glottis; or lastly, it may become entangled in the interior of the larynx. Should it, on the contrary, be a heavy substance, such as a coin or bullet, it may become lodged for an indefinite period in the bronchus, and, having produced symptoms more or less grave and persistent, either terminate the patient's existence by suppuration or gangrene of the lung, or (as occurs much more rarely) be expelled by cough when assisted by a favorable position. Of the latter happy result, a case has been lately recorded, in which a pistol bullet, under the conditions just assigned, was coughed up from the bronchus after forty days.

I think it, on the whole, very probable that in the present case, the coin was lodged in the *ventricle* of the larynx. Its size and figure, taken in con-

* By a singular coincidence, I removed, not long afterwards, from the rectum, by the forceps, a fourpence, which had been swallowed, and arrested by a narrow stricture of that organ. It was blackened by the sulphur of the intestinal secretions. The coin from the larynx had of course undergone no such alteration.

nection with the mildness of the symptoms and the peculiar effect of change of posture on the sound of the cough, appears to support this view. Had the body not become thus engaged, it is likely that, in a subject of the patient's age, it would, as in Mr. Brunel's case, have descended to the bronchus, especially as the diameter of a fourpence is to that of a half-sovereign but as 5 to 6. When the foreign body occupies the situation just described, it does not, however, the less endanger life, nor is it the less subject to sudden, disastrous, and unexpected changes of position. In many cases (perhaps in most) no precise evidence can be obtained of its exact situation.

Auscultation and percussion will afford valuable aid in some instances, as, for example, where a body of extended surface or considerable size occupies the bronchus in a position favorable to nearly complete obstruction of that tube. In many other cases, however, where the body occupies the larynx or trachea, and as so often happens, is enveloped in mucus, or where it is of small volume, little assistance can be expected from the stethoscope; still even its *negative* indications should be invariably sought for. In estimating the diagnosis of foreign bodies in the windpipe, I may be permitted, lastly, to remark, that sufficient stress, as it appears to me, has not been laid on the fact, that although the pulmonary or laryngeal symptoms are in themselves often equivocal, they have suddenly attacked an individual who had, immediately before, been engaged in some unguarded respiratory movement, and who had some foreign substance at the time in the mouth, and that although at first urgent, these symptoms often subside, to recur again with greater or less intensity.

With regard to the treatment which I had proposed to myself, it will be observed that, in its essential features, it would have been the one adopted by that distinguished surgeon and physiologist, Sir B. Brodie, in the case of Mr. Brunel. From the indications afforded by the symptoms, it appeared to me, however, that in the present case it would have been more feasible to have opened the crico-thyroid space (by *full* crucial incision and reflection of the flaps) than to have resorted to tracheotomy; for, considering the coin to be situated either in the ventricle, or in some other part of the larynx, I judged that it would have been thus more directly accessible, in the event of its lying in a favorable position for immediate extraction.

In a case in which I removed a dog's tooth from the larynx of a girl of seven years, by tracheotomy, I found it impossible to reach the body with the curved forceps until, fearing injury to the mucous membrane of the larynx, I prolonged the incision, not only through the cricoid cartilage, but also through part of the crico-thyroid ligament. Mr. Porter, who was present, concurred entirely in the propriety of this proceeding, which, I had the satisfaction to find, left the functions of the larynx quite unimpaired

As to the practicability of removing a body of the diameter of a four-penny piece, through the crico-thyroid space, this will be sufficiently apparent when I state, that I have found the transverse diameter of that space, in the adult, to be seven-eighths of an inch, and double that of its vertical. Now, as a fourpence has a diameter of five-eighths of an inch only, ample space would be thus afforded even for a larger body, especially when the elasticity of the parts is considered.*

I do not perceive any valid reason, anatomical or physiological, why the tube should not be divided when necessary (as in the case just mentioned) through the cricoid, or even through the *thyroid* cartilage; provided always, that *the median line* be strictly observed; and I feel satisfied that any speculative danger on that score, is far outweighed by the actual mischief inflicted on the delicate and important mechanism of the larynx by repeated ineffectual efforts to grasp the body from the *trachea*. The unossified cricoid cartilage permits of considerable divarication of its cut edges without any force; and in the event of the foreign body having passed into the bronchus, the space thus gained might be increased without danger by the removal of a thin slice from the margin, as often done in the trachea, and by prolonging the incision into the upper rings of the latter. A suitable slender forceps might be then readily introduced, while some of the dangers and inconveniences of tracheotomy would be thus avoided. I have found in the living subject, as above related, that the division of the isthmus of the thyroid body is not necessarily accompanied by any hæmorrhage; nor is the latter likely to occur to any important extent, even in the adult, when the structure of the gland is not diseased. The operation just described, which, I may observe, has been proposed, and I believe performed, by some of the older French surgeons, would thus have the advantage of rendering *both* the larynx and bronchus accessible in those numerous cases in which doubt exists as to the precise situation of the foreign body.

With regard to the operation of inverting the patient's body, viewed in connection with an artificial opening in the windpipe, this well-considered manœuvre, as is well known, was crowned with success in Mr. Brunel's case, and happily illustrates the importance of that union of physiological and surgical science, of which Sir B. Brodie's career affords so distinguished an example. Had it been necessary to have resorted to this procedure in the case which forms the subject of the present observations, the question might naturally have arisen, whether the proximity of the proposed artificial opening to the glottis, would have exerted any influence in preventing that quiescent condition of the muscles of the latter, which it is the inten-

* I find the diameter of a half sovereign to be six-eighths of an inch.

tion of the operation to secure,—further—whether inversion should *precede* the employment of the forceps, or be resorted to only in the event of the failure of the latter. And lastly, where the former plan has been decided on, the inquiry would suggest itself, whether any and what interval should elapse between laryngotomy and inversion. As respects the attempts to grasp the foreign body by the forceps, should it be found tangible from the wound, I apprehend few surgeons would be disposed to forego the attempt, in favor of a preliminary inversion of the patient, which, if unsuccessful, might lead to a transference of the substance to the bronchus, &c. These are questions which, with the limited number of facts at present at our disposal, cannot be answered with precision. In Mr. Brunel's case, sixteen days, I believe, elapsed between the operation and the subsequent inversion; and it seems, on general grounds, not unlikely (at least where a previous attempt to grasp the body has failed) that *some* interval should elapse, in order to re-assure the laryngeal muscles, and to allow the glottis to acquire the passiveness essential to the success of the manœuvre. In confirmation of this view, I think it will be found, that in most cases where food has passed into the larynx, through a glottis paralyzed by tracheotomy, this result has not taken place very shortly after the operation.

When a coin has entered the larynx, it has been proposed by Dessault, and also by later observers, to introduce a gum-elastic catheter into the glottis, in the hope that while air would be thus supplied, the foreign body would glide edgewise along the instrument when the patient was inverted, and that hence an artificial opening might be dispensed with. Such a procedure, however, appears, on obvious grounds, to be not very feasible.

Although in the foregoing observations I have, in common with most surgeons, advocated the propriety of not trusting to the uncertain issue of natural efforts for the expulsion of the offending substance; still, no one who has witnessed many such cases, can be insensible to the dangers which invest operations on the air tube. Some of these arise, at times, most unexpectedly, as, for instance, spasm of the glottis at remote periods, after removal of the canula, when all is thought secure. But on the other hand, circumstances occasionally occur, which must not be hastily charged on the operation. Thus, in a case which I have already recorded, the impaction of a mass of viscid mucus in the bronchial bifurcation caused sudden death many days after tracheotomy had been resorted to. Again, congestion of the brain sometimes takes place as the result of the violent respiratory struggles which succeed the accident, and may terminate life, *after the operation*, with convulsive or comatose symptoms, analogous to those observed in the secondary asphyxia of submersion.

PART IV.—HOSPITAL RECORDS.

THE winter courses of lectures having commenced at the several schools of medicine in this city, a marked difference is observable in the wards of the different hospitals, from the number of students who are to be seen in them. It is really quite gratifying to find that there is a growing desire manifested by the students for clinical instruction at the bedside; and those who come to New York to prosecute their studies will find ample means within their reach to gratify this laudable spirit of inquiry, in the best field for observation—the surgical and medical wards of a hospital. Their own observation, if they will only exercise the powers with which God has blessed them, will do much, and the pertinent remarks of the visiting physicians and surgeons will aid them materially in recognizing the principal characteristics of disease and the result of treatment. A word of advice may not altogether be thrown away in this place. Instead of crowding after the professor or teacher to every bed in the wards, a custom attended with great inconvenience to all—surgeon, patient, and students,—it is much the better plan to attend to one or two cases only, to watch these narrowly from their admission to the termination of the disease, and to make notes of what is seen and heard in relation to each case. A few kind words to the patients thus selected, after the formal visit is paid, will frequently elicit much information which would otherwise be lost; and a habit of questioning and examination will thus be established, very advantageous to every one in after life.

Nor does the duty of observation cease with the discharge or death of the patient. In the former instance, the endeavor should be made to obtain another case of similar disease, in order to mark the differences exhibited by it, in order to trace their cause or origin, in constitutional peculiarities or other modifying circumstances—the influence of different remedies and modes of treatment. In the latter event, the postmortem examination should be carefully noted, so as to make the eye familiar with the pathological changes produced by the disease.

As the MONTHLY has its readers among the students, for whose benefit this digressive exordium is written, the more experienced practitioner is requested to view it with favor.

NEW YORK HOSPITAL.—During the summer months many cases of Chagres fever, of an obstinate character and severe type, have been admitted to the wards of this institution. These cases came here suffering from the aggravating effects resulting from a warm voyage, generally in crowded vessels, with constitutions very much shattered by repeated pre-

vious attacks, and in many instances by irregular habits. To eliminate the poison taken in by the system during a residence in the malarious districts, under such circumstances, requires great care, and a long-continued course of active medicinal and cautious dietetic treatment. The success attending the plan pursued in this Hospital has been very marked; although many leave before convalescence has been fully established, and suffer subsequently from relapses, not unfrequently seeking for readmission.

It has become a popular custom, one not uncommon even among the profession, to give this type of fever the name of the locality at which it is generally contracted; but there does not appear to be any cogent reason for supposing it to be a specific type of disease. It must be regarded as the ordinary bilious remittent of warm and tropical latitudes, exhibiting, it is true, some irregularity in the train of symptoms, and particularly in the periods of remission; assuming at one time all the characters of active hepatic congestion, which in a subacute form accompanies all the varieties, with remissions more or less distinct; at another time presenting many of the phenomena of violent tertian or quartan ague. Not unfrequently it will pass into a typhoid type, in which the vital powers are very speedily exhausted. In all the varieties however, there is no doubt that the exciting and controlling influence is the malarious poison.

Dr. Bulkley has treated three cases of pleuritic effusion very successfully, by paracentesis thoracis.

During the time in which the French vessels of war were in our harbor, upwards of twenty cases of scurvy were admitted. This is a form of disease rarely seen now-a-days, particularly by landsmen. The great benefit of the dietetic treatment pursued must have been appreciated by all who witnessed it. They very speedily recovered under the use of vegetables and fruits, and a mild course of diaphoretics and purgatives.

In the surgical division of this institution, among other cases of interest, an attempt to reduce a dislocation of the femur on the dorsum ilii, of some standing, is worthy of comment. The case was under the charge of Dr. Markoe, who adopted Reid's method of reduction. Unfortunately, during the manipulation necessary for the purpose, it was ascertained that fracture of the neck of the bone had taken place. This is a casualty exceedingly apt to occur, I suspect, in this peculiar mode of procedure and one which every precaution must be employed to guard against. The truth is that, although apparently very philosophical in principle, it is by no means very easy of accomplishment. It requires much physical power, and great practice and tact in the operator. In the hands of its author it has proved very successful, and many others have been equally fortunate, in following his instructions. But it must not be overlooked, that it involves the application of a mechanical power which requires, for its complete

control, an intimate knowledge of the laws regulating it; that its application is made to living tissues under peculiar relations, and themselves subservient to forces and laws which cannot be brought to bear on inert matter. Nor is it improbable that the structural integrity or resistance of the parts implicated, may be so disturbed as to be inadequate to the amount of force necessary to be used in the operation, a condition not always easily ascertained beforehand. In recent luxations, in subjects not very muscular and strong, this mode of reduction may be employed with advantage by those familiar with "the trick of it;" but should always be adopted and carried through with great caution.

Dr. Buck has recently employed the modification of clamp-suture introduced to the profession by Dr. Sims, in bringing together the edges of the laryngeal wound in a case of cut throat; with what advantage over the old method of stitching, the result of this and other cases can alone establish.

WARD'S ISLAND. *Encephaloid Tumor of the Parotid Gland.*—Professor Carnochan removed, some time ago, a large encephaloid tumor of the left parotid gland, from a man twenty-five years of age. The tumor was of six months growth, and involved all the adjacent glands. It occupied the anterior and posterior triangles of the neck, passing under the sterno-mastoid and behind the deep jugular vein, covering the dorsum of the neck; and in front nearly reaching the clavicle. All the tissues being matted together by the disease, rendered the operation a very serious and intricate piece of dissection. The common carotid was tied, as a preliminary step, above the omo-hyoid; this measure Dr. Carnochan stated he adopted for two reasons: first, to prevent hæmorrhage during the operation; and secondly, to alter the nutrition of the parts, and thus prevent a recurrence of the disease. The sterno-mastoid was cut through during the operation, and six vessels tied. After the tumor had been removed, a portion of powdered sulphate of copper was blown into the extensive cavity left, and over the wounded surface generally. The wound has healed kindly. It is somewhat singular that the same patient should be the subject of congenital dislocation of both ossa femoris on the dorsa iliorum.

Ligature of the Femoral Artery.—This operation has been twice performed lately, and on the first occasion under the following circumstances, involving a point of practice of some interest. A man sustained a wound of the plantar arch by glass, hæmorrhage had occurred at intervals for two weeks, which had very much debilitated the patient. The tissues of the foot around the wound were very much infiltrated with coagulated blood. The femoral was tied at the apex of Scarpa's space. This proceeding has been followed by perfect restoration of the parts to the normal condition, the cessation of the hæmorrhage, and the improvement of the general

health. There has been some numbness of the extremity, but no great loss of muscular power.

It has been recommended by high surgical authority to cut down directly on the wounded vessels, and apply the necessary ligatures to the severed extremities—a course which would seem to insure the same results, with less disturbance to the general nutrition of the limb, and to obviate the risk of gangrene, which sometimes supervenes when the supply of blood through the main artery is cut off. If this proceeding was rendered impracticable by the condition of the parts around the wound, the selection of some vessel not quite so important, such as either or even both of the tibials, would seem to be a preferable alternative. There may have been, however, in this particular case some other circumstances which governed the operator in electing the ligation of the main trunk; and it has been successful. The second operation was done for aneurism in the popliteal space, in a fine healthy man, and with every prospect of a favorable result.

Amputation at the wrist joint was performed for caries of the bones of the carpus and metacarpus. In the course of the operation it was discovered that the extremities of the radius and ulna were also diseased, these were then sawn off. It is unfortunate when this necessity arises, inasmuch as the primary incisions have to be modified to some extent in consequence, in order to permit the due removal of the newly displayed diseased portions. It would seem to be a question, therefore, whether in a case of doubtful diagnosis, it would not be better to determine the point of section at once sufficiently high to effect the removal of all the probably diseased structures, particularly where, as in the present instance, an inch or two less would not affect the utility of the stump.

Removal of the entire Radius. It is very seldom indeed that in the course of so short a period of time, it should occur to the same surgeon to have to perform two operations of such a rare and peculiar nature, as the entire removal of both bones of the forearm. The readers of this periodical will remember that during the earlier part of this year, a report was given of the removal of the entire ulna. Dr. Carnochan has since published the case in detail. He has very lately removed the entire radius, with the same happy results which attended his ulna case. The wounds in the latter instance are not yet sufficiently cicatrized to enable one to judge of the extent of mobility and power retained by the wrist and hand; but judging from present appearances, there can be little doubt but that they will be preserved, although, perhaps, not to the same extent, inasmuch as in this instance, it is the bone which enters most largely into the formation of the wrist joint which has been removed. The disease of this bone had existed for twelve months, and there was partial ankylosis of the elbow

joint. Some little trouble was experienced from the severance of one of the interosseous vessels, evidently enlarged by the diseased action; but the hæmorrhage was easily controlled by ligation.

Dislocation of the femur reduced after four months. A case of dislocation of the os femoris in the ischiatic notch of the left side, in a man of upwards of 30 years of age, which had been displaced for four months, was admitted, with a view to its reduction. The attempt to effect this was made in the first instance by the pulleys. The adventitious attachments of the head of the bone were broken down by this means, but the displaced bone remained in its abnormal position in spite of very severe traction. At this stage of the proceedings recourse was had to Reid's method, in as far as it is applicable to dislocations in this situation, and with the happiest results; the bone was replaced. Shortly after its reduction, however, it slipped back again, but was again replaced by similar manipulation. The limb was then placed on the long straight splint, and has since retained its place; and the patient is doing well.

Dr. Cox has commenced a series of demonstrations on the pathological specimens obtained by *postmortem* examinations of those patients who die in the medical, obstetric, and children's wards. We took occasion, some time ago, to allude to this gentleman's admirable clinics in his own department; we can only add, that the additional advantage to be gained by the student, from this more recent arrangement and additional service, is not one to be slighted or overlooked. The demonstration has hitherto been given on Saturdays, immediately after Professor Carnochan has concluded his operations; but as this brings it to a very late hour sometimes, it is to be hoped that Dr. C. may find it to be consistent with his other engagements to give his address at an earlier period of the day.

Total destruction of one kidney.—A specimen was shown, in which one kidney was entirely destroyed by suppuration; nothing remained but the capsule of the gland, which looked like a lobulated cyst, filled with pus. The ureter of this kidney was very much enlarged. The opposite gland was also in a diseased condition, exhibiting the appearance usually seen in Bright's disease. The most remarkable feature in connection with this case was the reported absence, during life, of any prominent symptoms which would lead to the suspicion of renal disease. The diagnosis made on his first admission to the hospital, was of intermittent fever. From this he was apparently convalescent, and was about to be discharged, when he rapidly sank into a typhoid condition, and died. We did not ascertain whether special attention had been paid to the investigation of the physical and chemical condition of the urine; and the absence of any satisfactory information concerning the history of the case previous to his admission, may, probably, have rendered the diagnosis somewhat obscure; but it certainly seems

to be remarkable, that such extensive structural alteration should have taken place without corresponding functional derangement.

Specimens were also exhibited of a uterus, from a case of *puerperal peritonitis*; and of tubercular deposit in the lung and glands of an infant.

The Second Avenue cars now run to within a very short distance of the Red House, and without any stoppage or changing, which makes the trip much more pleasant than it formerly was. They travel, too, at a quicker pace, which enables the visitor to calculate his time with greater nicety.

PART V.—EDITORIAL AND MISCELLANEOUS.

MEDICAL STUDENTS IN THEIR WINTER QUARTERS.—Since the issue of our last number, some hundreds of medical students have come to town. They have come from down East, and from down South, from out West and from every quarter to which the weather-cock ever points. They have come from cities and from the country—pouring in like the young folks of a farming town to a husking frolic, or the clergy to a general convocation. The city is full of them, and they are full of zeal for their winter's work. They have studied the black boards at the halls of the colleges, and the advertisements in the daily papers to find winter quarters. Some of them have gone into fashionable boarding houses, and will pay handsomely for it before spring. Some of them have fallen upon cheap boarding houses, and will get more experience than good living. Some have had the good fortune to get into private families, where the comforts of a home will be vouchsafed them "for a consideration." We are disposed to congratulate such of them as have found quarters to their mind; and to such as are unfortunate we tender our condolence, and hope they will make the best of it.

It is generally understood that medical students are human, and the frailties of poor humanity they are suspected of sharing even as other men. They are a little peculiar as a class, for the best of reasons—that their employments are peculiar and their time is occupied as that of no others is. See how their days are spent:—

It is hard work in winter to swallow one's cakes and coffee, put on a hurried toilet, and be from the boarding house up to the college by nine o'clock; but that is the hour at which the inexorable gong beats for the morning lecture. As things are generally arranged, four lectures, of an hour each, follow each other in close succession; during which the student's

thoughts must not once go out a wool-gathering nor his attention flag, or he loses a point that may spoil the whole lecture for him. Then comes a recess of three hours ; but in it is to be taken the walk in the City Hospital,—if he takes, as he should, a Hospital ticket,—his gettings to and from the college, Hospital, and boarding place, and the bolting (it can scarcely be called eating) of a hurried plate of whatever the good landlady is kind enough to provide. From four to six come two additional lectures, and then tea.

Now, says the student, for a little recreation,—a laying off and digestion of the day's ingesta. No such thing for him, if he is disposed to make the most of his opportunities. What good will he get of his anatomy if he only hears its technical terms rehearsed, while the lecturer points at this tissue and that, and demonstrates across the room the position of artery, nerve, or vein? He must enter the dissection room, and see for himself what it is that our strangely compacted bodies are made of. He must himself direct the scalpel along the tissues of the dead body, if he would safely handle it upon the living. He must make himself personally acquainted with every part, if he would competently medicate when the whole is suffering, or recognize how the forces, external and internal, derange the economy or can be diverted from an abnormal to an orderly and healthful action. He ought to spend from eight to ten o'clock every evening in the dissecting room ; and *then*, may he "get him to bed?" No ; if he would not be led by the nose, by the professor to whom he listens,—if he does not wish to be made a blind follower instead of an intelligent learner, he must read up the topics discussed before he sleeps, in some trusty text-book. And he ought to get a little season for thinking over what he is hearing,—for arranging it, as it were, into orderly shape, and so disposing it that memory will be able to draw it forth when wanted. Truly it is a full programme, and the economical medical student must be a busy man during the lecture season. He could not continue such a course of application throughout the year, of course ; for our muscles, after all, are not ribbons of iron, nor the toughest nerves made of brass wire. And while the season continues he must sleep some seven hours, or thereabouts ; else the brain will be dull, and the intellect that of a foggy, though the eye and the mien and the bearing is that of one who belongs to the order of young physic.

The crowding of so many lectures into a day is not exactly desirable, but it cannot well be helped. Situated as most students are, it is not practicable to spend much more than four or five months at the centres of medical intelligence ; and while here they have to adopt somewhat of the anaconda style of feeding—swallowing down an enormous carcase to digest leisurely during the summer months. The adaptability of nature to circum-

stances is marvellous; and until we all become rich enough to do as we would, we must even do the best we can with our present means.

There is a great deal of nonsense current about over-working. Very few of our young folk know how much they can do, or how much they can bear. And this very arrangement of lectures, cliniques, and hospital attendances, which looks as if it would need half a dozen bodies and as many minds to get through one day's work with well, is the first thing that opens the eyes of students to see how much they can see, hear, learn, and lay to heart in the working hours of the twenty-four. But, then, one thing is certain;—the student, who is all a student, cannot spend many hours in visiting theatres and operas, or looking up the lions of the city. He must consent to learn little of fashion, and see little of what the riotous and objectless call life. Medicine being his wife, he must have no mistresses dividing his love. Even literature, excellent as she is, must consent to be a sort of distant cousin only, not often called on, though most ardently admired. One thing at a time, and all attention to that while it is up, will do wonders. The pleasantest task should come last at night, that bad dreams may not be gendered to suck the nourishment out of sleep. Then the changed employments and the rest of the Sabbath, being carefully observed, will pour a balm over the bruised energies of the week past, and fit him for a new week of harder labor and more satisfying toil. ††

OPENING OF THE SESSIONS AT THE MEDICAL COLLEGES.—We judge from all that we see, that there is an unusually large number of medical students—and especially of Southern students—in this city the present season. It would be premature to specify the number matriculated at the three schools at this time; but a few days having elapsed since the respective courses commenced. We think we may claim that some part, at least, of the increased patronage alluded to, may be attributed to the information in respect to the vast resources of New York for medical purposes, which has been imparted to the profession throughout this country by the Hospital Reports, and the historical sketches of its hospitals, which have appeared in the pages of the MONTHLY.

The Introductory Lecture, at *The College of Physicians and Surgeons*, was delivered on Monday evening, October 16th, by Dr. Torrey, Prof. of Chemistry in this College; but we have not been able to obtain any report of his address.

The Introductory address at the *University* was delivered on the evening of Monday, Oct. 16th, by Prof. Draper, as usual; and it was also, as usual, an able and interesting performance. We copy the following report of his eulogy on Dr. Swett from the *New York Tribune*, of the 18th:

Since I have thus alluded to the loss the University has sustained by the

decease of Professor Swett, I may be permitted to add here a few particulars of his biography, for your benefit. At an early period, intending to devote himself to the pursuit of our profession, he spared neither pains nor expense to lay a broad and suitable foundation for his future medical career. Graduating with distinction in the medical department of Harvard University, he subsequently visited Europe, and made himself familiar with the practice of physic, as taught in those schools. His natural turn of mind enabling him to appreciate whatever is exact, he cultivated with especial attention the processes of physical examination; and on his return home soon distinguished himself by the skill he had attained in those modes of diagnosis. A constantly extending practice could not divert him from the cultivation of these and kindred studies, and after a while the fruits of his labor appeared in the work which he published on the Diseases of the Chest. For twelve years the New York Hospital furnished him a field for the exercise of his professional skill; and by his appointment in the University, as Professor of the Practice of Medicine, many of you had an opportunity of profiting at once by his precept and example—an example, than which I can offer you none better suited in your own career—an example, which, if you follow, you will be enabled to occupy that position of responsibility, public and private, to which I have been referring, and which will lead you to honor and distinction.

Professor Swett's connection with the University, though brief, was long enough to teach his colleagues his value, and make them lament his loss. They saw, with the profoundest sensation, the rapid decline of his health. With the hand of disease heavily upon him, he still delighted to revert to his University duties. It may be truly said that to the instruction of this class he had consecrated all his powers.

From the closing scene of the life of a friend we may gather an instructive and solemn lesson. Professor Swett retained his faculties unclouded to the last. Expecting the momentous change, he calmly gave instructions for his burial; and as the darkness settled over his eyes, it was to him, as to Milton, only the shadow of the wing of the Almighty—a refuge for his weariness. Accustomed as physicians are to the various circumstances of death, there is perhaps not one which presents a more profound interest than this retention of mental power. With all the functions of organic life deranged, and the body attenuated, exhausted, and ready to die, is it not well that sometimes the spirit should in this way display its innate vigor unimpaired, and assert its separate state? For who that witnesses it in this mortal extremity, whether it be tranquil and prepared for the impending change, or terror-stricken and in affright at the ruin in which it is entangled, can ever after for a moment doubt of its independent life?

Dr. Metcalfe, of this city, succeeds Dr. Swett.

The introductory address, at the New York Medical College, a portion of which we have given elsewhere, was delivered on the evening of the 18th, by Dr. E. H. Parker, Prof. of Physiology and Pathology. It was received with much interest by all who listened to it; the spacious hall being filled by medical students, and the friends of the college, including a large number of ladies.

At the same time, "certificates of honor" were conferred by the Presi-

dent of the Faculty upon about twenty students, for diligence and attention during the summer and fall courses of lectures, which are independent of the winter courses.

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THE CHOLERA IN NEW YORK.—Our city may now be regarded as almost entirely freed again from this disease. The Franklin street Cholera Hospital, under Dr. Vanderveer, was closed some six weeks ago; and the Mott street Hospital, under the direction of Dr. D. S. Conant, closed on the 23d: it had contained but a single patient during its last week. The present Number contains a paper of much statistical interest, from Dr. Conant, in regard to the results of treatment of patients under his care.

One of the most curious occurrences in medicine was witnessed in the city, during the last fortnight of October. Some six deaths, of persons in comfortable circumstances, or even of wealth, occurred quite suddenly from cholera. Most of them resided in the upper and more healthy portion of the city, where, during the whole summer, but little cholera had existed. As usual, some special cause was looked for, and in one case it was found that oysters had been eaten a few hours previous to the attack. In two others it was found that within twenty-four hours they had constituted a portion of the diet of the individuals. These facts, taken in connection with a rumor of the unhealthiness of oysters in some of the southern waters, created a wonderful panic, properly enough styled by a city paper, "The oyster epidemic," which prevailed to so great an extent as, for a short time, to put an almost entire stop to the trade in this shell-fish. A little careful examination, however, showed conclusively that in some cases the oysters had been taken as a simple diet for one suffering under diarrhoea, while in others they had constituted only a portion of a full meal. Of course the panic soon subsided; but it is quite curious that so much terror should have been excited by these few cases, when, at the same time, thousands of other persons had been indulging in the same diet with perfect impunity.

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION.—We have had the pleasure of looking over a portion of the sheets of the forthcoming volume of this publication. It is with much pleasure that we learn that the last proof-sheet has been read, and that the binders have made some progress with their portion of the labor. It is probable that the work will be distributed to subscribers before our next issue, and that in a style which, as to printing, and binding too, will compare favorably with the numbers previously received, at least out of Philadelphia.

A NOVELTY IN PRACTICE. *Ascites. Paracentesis abdominis. Admission of Air to the Peritoneal Cavity. Radical Cure.*—Mrs. — was the

subject of a premature labor, which was followed by peritonitis, succeeded by general dropsy. The lower extremities became cedematous, fluid collected rapidly in the abdominal cavity, and there was evident effusion in the lower lobes of both lungs. The case was complicated by much enlargement and induration of the liver and displacement of the heart. The patient was subjected to a severe course of therapeutic treatment, which had the effect of relieving the lungs; but the accumulation in the abdomen was so great as to render necessary its evacuation by operation; this was repeated seven times within thirteen weeks, the quantity of fluid withdrawn varying from twenty-four to sixteen pints, at each operation. Dr. Henry A. Hartt, of this city, under whose care the patient was treated, determined to effect, if possible, the arrest of the secretion by other means than the administration of medicine, having tried numerous remedies with unsatisfactory results. Accordingly, after the last operation he inserted a curved canula, about an inch and a half long, in the puncture made by the trochar, which was retained *in situ* by an elastic band. This canula was worn for three days, when it was withdrawn; and subsequently, for five weeks successively, he introduced every day, an ordinary female catheter for an inch and a half, permitting free access of air to the cavity. These proceedings produced inflammatory action of a subacute character, which readily yielded to mild treatment.

There has been no accumulation of fluid since the introduction of the canula, sixteen weeks ago, nor has there been any unpleasant constitutional disturbance; on the contrary, the patient has been relieved from the dyspnoea and other attendant symptoms of the dropsy, and her general health seems to be much improved. There was some thickening of the abdominal walls, in the lower portion of which an abscess formed; this was opened, discharged freely, and is now healed. She is still under treatment for the hepatic disease.

Dr. Hartt intends to publish a detailed account of the case. It possesses much interest, from the success of the experiment to arrest the ascites upon the principle of the radical cure in hydrocele. It was a bold attempt, and would seem to justify the parallel practice recommended and adopted by Dr. Bowditch in the case of the pleural cavity, and the ovarian cyst by Dr. Simpson, of Edinburgh. †

DEATH OF VALENTINE MOTT, JUNIOR, M. D.—Among the victims of this season's pestilence in New Orleans, we deeply regret to find recorded the name of this gentleman. As the son of our foremost American surgeon, he inherited a great name, and with it, great responsibilities. It was his chief merit that he never lost sight of them. He graduated in 18—, from the New York University, and remained for several years his father's faith-

ful and earnest companion in the prosecution of professional duty. Thus matured by the best of culture, Dr. Mott visited Europe, where, in the progress of events and aided by his own merit, he became, during the brief struggle of 1848, the Chief of the Surgical Staff of the Sicilian patriot forces. Shortly after his return to his native land, he received the appointment of Professor of Surgery in one of the Baltimore colleges. We next find him in California, where conspicuous success rewarded his industry and talents. He was on his way to visit the home of his early youth when death overtook him, in the thirty-third year of his age. Possessed of lively and active sympathies, Dr. Mott had many friends, in whose memory he survives with love and honor.

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DENTISTRY.—We have all learned to laugh benignly over the quips and jests directed against us as a profession, in relation to the combination of the two *trades* in one individual. The barber-surgeon of some one-hundred years ago, was, in his own way, a useful man and good appendage to the scientific *pure* who never condescended to the performance of the kindred operations of bleeding and tooth-drawing. Things have altered strangely since then; shaving has become a specialty, and so has tooth-drawing; but in addition to the extraction of those most useful but troublesome bones, the insertion of them, the supplying that *hiatus valde deflectus*, so unbecoming to the human face divine, has also become a specialty, and one requiring much ingenuity, great mechanical skill, and, as it is practised now-a-days, a fair share of chemical knowledge. We have been incited to this notice of the subject, in consequence of lately enjoying the opportunity of seeing the process, and its results, employed by Dr. Allen, of Bond-street, and his skilful assistant, Mr. Putman, of manufacturing sets of artificial teeth, very natural in their appearance, and certainly more indestructible in their nature than the natural ones. The merit of the mode of procedure adopted by these gentlemen consists in the discovery of materials and their proportional quantities, which, when fused, form a hard, porcelain cement, which is susceptible of the nicest moulding and coloring, and which unites the tooth to the plate, itself representing the gum in a very perfect manner, the whole having the appearance of one solid mass. A platinum plate is used instead of gold, as the latter would not bear the high temperature necessary for incorporating the several parts, and hardening the cement. When nicely put together, and well colored, these sets of teeth are certainly remarkably handsome, and are calculated to add a grace to many a mouth. We presume we should infringe a patent-right were we to attempt a description of the mode of preparing this elegant and complete article, otherwise we should like to give a description of the materials and method employed.

While on this subject, we will take the liberty of suggesting to our dental friends, that it is exceedingly absurd to see those who confine them-

selves to the mechanical part of the business, styling themselves "doctor;" as well might the maker of an artificial leg adopt the title. The dentist, properly so called, who devotes his attention to the diseases of the teeth and gums, may, with some foundation for the pretension, designate himself "surgeon;"—a custom which prevails in Great Britain, where the surgeon-dentist is almost invariably a licentiate of one of the colleges of surgeons: "Mr." is the distinguishing appellation. There are, indeed, many surgeons, who, be it remarked, are also graduates in medicine, and hold the doctorate legitimately, who disdain to use the honorary prefix—calling themselves simply, "Mr. Bell," "Mr. Guthrie," until they get some other distinguished prefix, the baronetcy, to wit, and then they become merged with the other "Sirs;" but while seeking and gaining their reputation, they sink the "doctor" altogether. It is, in fact, a purely academical honorary title, to which none have any right but those who have obtained it by a prescribed course of study and sufficient examination. It is not, usually speaking, *ad practicandum*, and therefore is valueless, in this point of view, to the surgeon. We can easily conceive the licentiates of the Baltimore College of Dentistry being proud of the title bestowed upon them, "D. D. S.;" but that a mere mechanic, useful and honorable as his employment may be, should assume the style of "Doctor of Medicine," is a little too ridiculous. Come, gentlemen, drop the two capitals; let the world see that you are not ashamed of your business, and you will gain as much credit for good sense as you do for skill and science. †

ITEMS OF FOREIGN MEDICAL NEWS.—*Earl Stanhope* publishes the substance of ten addresses that he delivered before the Medico-Botanical Society in London, under the title of "A Discourse on Medical Botany." The earl's effort is exceedingly creditable, though, in some points, he manifests a disposition to reach a conclusion from very indifferent premises.

Dr. *John Grove* has issued a second edition of his "Sulphur as a Remedy in Cholera and Diarrhoea." The book is philosophical and ably written, and is not so flush of theories as the other volume from the pen of this author. He thinks much better of sulphur than our readers probably do. He gives no reason for its extraordinary success. The following is his mode of preparing and exhibiting the sulphur: He takes four ounces of pure precipitated sulphur, and an equal portion of bicarbonate of soda. These he triturates and combines in a mortar, adding, by degrees, twenty-four ounces of compound spirit of lavender. When this is well mingled, he adds, in like manner, seventy-two ounces of water. Of this mixture the patient takes two teaspoonfuls in a little water, every two, three, or four hours, in simple diarrhoea; but if the case is urgent, every ten minutes or quarter of an hour. In sudden attacks, when the patient is suffering severely, Mr.

Grove adds to the first dose from ten to thirty minims of laudanum, or Battley's Sedative. Mr. Grove does not repudiate other remedies for pressing symptoms.

Heberden Milford has written a three-volume novel, entitled "*The Physician's Tale*"—a pleasant and very romantic story.

Dr. *Wm. Harvey*, Surgeon to the Royal Dispensary for the Diseases of Ears, London, has written a complete and able treatise on "The Ear in Health and Disease, with practical Remarks on the Prevention and Treatment of Deafness." Under the head of *Prognosis* he says, that of 2,500 cases of deafness treated at his Dispensary, 1,000, or two-fifths, proved curable. He protests against the indiscriminate use of the ear-probe, syringe, and catheter, and condemns the excision of the tonsils, as not often necessary.

Medical men in England are discussing the "invariable existence of a premonitory diarrhoea in cholera." The facts and investigations published certainly favor the doctrine; but there is a general feeling that not half facts enough—nay, not a hundredth part of what should be observed have been noted; and, consequently, that to accept the doctrine as settled would do mischief.

Contrary to the policy of the New York papers, the London *Times* during the prevalence of the epidemic cholera, abstained from publishing the particulars of its fatality. Our people are readers, and what would do well enough for Londoners would be poor policy here. The papers of New Orleans tried the same plan, during the late yellow-fever epidemic; and the result was, the most ungrounded rumors of a fatality far beyond what actually existed were current, to the great injury of the city, and the swelling of the panic.

Mr. Finney, a dentist, late of Alexandria, found a stuffed tooth in a mummy, and several teeth in other mummies which bore marks of filing.

The treatment of cholera by castor-oil continues to be the fruitful topic of discussion in the professional and non-professional journals of London. If we read *but one side* we might be easily convinced.

Out of one infamously dirty alley in Naples, cholera destroyed 143 out of 146 inhabitants. The three survivors were removed by the authorities.

The French emperor shows wisdom in promoting, as they deserve it, his medical officers. M. LAUVERGNE, first Physician in Chief of the Navy, he has promoted to the rank of Officer of the Legion of Honor, and the two surgeons MM. MACRET and LAMBERT, he has appointed Chevaliers of Honor, for their devotion to the sick of cholera, at Toulon.

Some Malays have appeared in Cadiz lately, whose success in *miraculously* curing the cholera has greatly comforted the populace. This is their mode of operating on the cholera patient. They place the person attacked on the back, and uncover the breast and abdomen; then they effect

friction in a way which they alone know, and which they continue until they feel beneath their fingers a small round substance, which they force to the centre of the epigastrium, and which they then pinch forcibly, as if to crush it. They retain the substance in the same position until the patient has taken a cup of tea, into which they throw some drops of a liquor prepared by them. An instantaneous cure is effected; and the patient only requires to take a walk in the open air to be completely recovered. The operators affirm that in very rare cases two of the little round substances are found instead of one, and that then the evil is incurable. These miracle-mongers have a theory, that little worms attach themselves to the heart and produce the cholera. They crush them, they say, after coaxing and driving them down into the little round bodies under their fingers. They ask no pay for their services; and the superstitious, including almost the whole city, flock to them in crowds.

There is a great lack of medical men in the armies of the allies. Much complaint is made that none but the thoroughly educated in all departments of medical science are permitted to act as surgeons and assistants, and that hence is the scarcity.

MR. SPENCER WELLS' new work on *Gout* has sweet consolation for those afflicted with this aristocratic disease. He says,—“Among the present members of the Houses of Parliament, those who are known to be subject to gout are among the most distinguished for an ancestry rendered illustrious by high thoughts and noble deeds, for their own keen intelligence, for the assistance they have afforded to improvements in arts, science, and agriculture, and for the manner in which they have led the spirit of the age. If it were proper to mention names, I believe I could prove this to be the case; and I never met with a real case of gout, in other classes of the community, in a person not remarkable for mental activity, unless the tendency to gout was clearly inherited. It is perfectly true that butlers, hall-porters, and other individuals in equally easy circumstances, are often subject to gout; but many such persons are the sons of parents who have lived in similar situations, and have received from their progenitors hereditary predisposition. I have seen a great many examples of the rule, and scarcely an exception, that when a person in an inferior station is subject to gout, and one of his parents was not similarly affected, he is a person of superior abilities or attainments.”

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It will be seen by reference to our advertising columns, that Dr. M. Stephenson, of this city, contemplates repeating his lectures on Ophthalmic Surgery this winter—the introductory to which will be delivered in the Fourteenth-st. Medical College, on Thursday, November 9th, at 7½, P. M. Students and the medical profession are respectfully invited to attend.